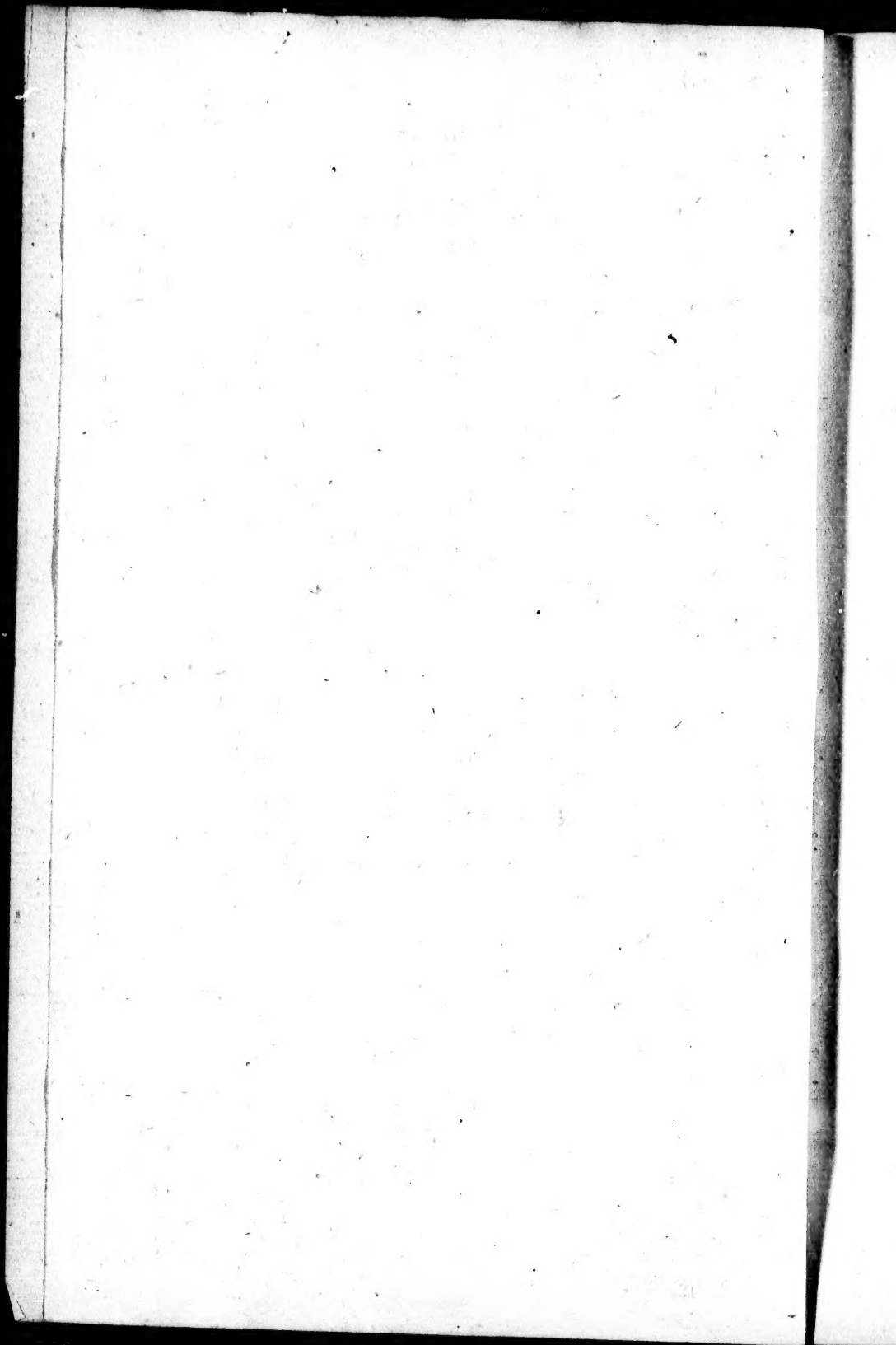




THE
NATURAL HISTORY
OF
B I R D S.

FROM THE FRENCH OF THE
COUNT DE BUFFON.

ILLUSTRATED WITH ENGRAVINGS;
AND A
PREFACE, NOTES, AND ADDITIONS,
BY THE TRANSLATOR.

IN NINE VOLUMES.

V O L. IX.

L O N D O N:
PRINTED FOR A. STRAHAN, AND T. CADELL IN THE STRAND;
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N^o 232



THE MUTE SWAN.

T H E
N A T U R A L H I S T O R Y
O F
B I R D S.

The S W A N.
LE CYGNE*. *Buff.*

1. *Anas-Olor.* Gmel.
Anas-Cygnus mansuetus. Linn.
Cygnus. Gefner, Johnst. Charl. &c.
Anser Cygnus. Klein.
Cygnus Mansuetus. Will. Ray, Sibb. &c.
The Tame Swan. Edw. Penn. &c.
The Mute Swan. Lath.
2. *Anas-Cygnus.* Gmel.
Anas-Cygnus ferus. Linn.
Cygnus Ferus. Briss. Ray, Will. Klein, &c.
The Wild Swan, Elk, or Hooper. Will. Alb. Edw. and Penn.
The Whistling Swan. Lath.

IN every society, whether of men or of the lower animals, violence formed tyrants, mild authority constitutes kings. The lion and the tiger on the earth, the eagle and vulture in the air,

* In Greek ΚΥΝΟΣ: in Latin *Olor*: in Arabic *Baskak*. Its name in Hebrew is uncertain. In Italian it is called *Cino* or *Cyno*; and at Venice *Cesano*; at Ferrara *Cifano*: in Spanish *Cifne*; and in

air, reign amidst the horrors of war, extend their domination by cruelty and the abuse of force. While the Swan upholds his stately empire on the water in gentleness and peace. Endowed with strength and vigour, and courage, but restrained by a sense of moderation and justice, he knows to fight and conquer, yet never urges an attack. Pacific king of the water-birds, he braves the tyrants of the air: he expects the eagle, without provoking and without fearing the rencounter. He repels his assaults, opposes to his talons the resistance of his feathers and the rapid strokes of a vigorous wing, which serves him as an *ægis* *; and often does victory crown his exertions †. This is his only formidable enemy; all the other ravenous birds respect him; and he is at peace with all nature ‡. He lives rather the friend than the monarch amidst the numerous tribes of aquatic birds, which all submit to his law. He is only the chief, the principal inhabitant of a peaceful republic §; nor have its citizens aught

Catalonia *Signe*: in German *Schwan*: in Saxony, and in Switzerland, *Oelb, Elbsch, Elbisch*, which Frisch derives from *Albus* (white): in Swedish *Savan*: in Illyrian *Labut*: in Polish *Labec*: in the Philippines, and particularly in the isle of Luzon, *Tagac*.

* Schwenckfeld and Aldrovandus.

† Aristotle, *Hist. Animal*, lib. ix. 2 and 16.

‡ *Illic innocui latè pascuntur olores*. Ovid. *Amor.* 2. *Eleg.* 6.

§ The ancients believed that the Swans spared not only the birds but even the fishes; which Hesiod indicates in his Shield of Hercules, by representing fishes swimming at ease beside the Swan.

to fear from a master who exacts no more than he grants, and whose sole wish is to enjoy tranquillity and freedom.

The graces of figure, the beauty of shape, correspond in the Swan to the mildness of his disposition: he pleases every eye; he decorates, embellishes every place that he frequents; he is beloved, extolled, admired*; and no species more deserves our applause. On none has nature ever diffused so much of those noble and gentle graces, which recal the image of her most charming productions: elegant fashion of body; roundness of form; softness of outline†; whiteness resplendent and pure‡; motions full of

* "Interest," says M. Baillon, "which has disposed man to subdue the quadrupeds and tame the birds, has had no part in the domestication of the Swan. Its beauty, and the elegance of its form, have engaged him to bring it to his habitation, merely to decorate it. It has always had more attention paid it than its fellow subjects; it has never been kept captive; it has been destined to adorn the pieces of water in his gardens, and there permitted to enjoy all the sweets of liberty. . . . The abundance and the choice of food have augmented the bulk of the tame swan; but its form has lost none of its elegance; it has preserved the same graces and the same freedom in all its motions; its majestic port is ever admired; I doubt even whether all these qualities are found to equal extent in the wild bird." *Note communicated by M. Baillon, king's councillor and bailiff of Waben, at Montreuil-sur-mer.*

† *Mollior & cygni plumis Galatea.* Ovid. *Metam.* 13.

‡ *White as a Swan.* This proverb has obtained in all nations; *λευκὸν ποταμίσκος* was the expression of the Greeks, according to Suidas.—*Galatea candidior cygnis*, says Virgil.—In the language of the Syrians the name of white, and that of the Swan, were the same. *Guillem. Paftregius. Lib. de orig. rerum.*

flexibility and expression; attitudes, sometimes animated, sometimes gently languishing:—All the features and actions of the Swan breathe the voluptuousness, the enchantment which wrap our soul at the sight of grace and beauty; all declare it, paint it, the bird of love*; all justify the ingenious and sprightly mythology, that this delightful bird was the father of the most beautiful of women†.

The noble ease and freedom of its motions on the water bespeak it not only the first of the winged sailors, but the finest model presented by nature for the art of navigation‡. Its raised neck, and its round swelling breast exhibit the prow of a ship cleaving the waves; its broad stomach represents the keel; its body, pressed down before, rises behind into the stern; the tail is a genuine rudder; its feet are broad oars; and its wings, half opened to the wind, and

* Horace yokes the Swans to the car of Venus:

——— quæ Gnidon
Fulgentesque tenet Cycladas, & Paphon,
Junctis visit oloribus. Carm. lib. iii.

† Helen, born of Leda and the Swan, whose form Jupiter is said by the ancients to have assumed: Euripides, to paint the beauty of Helen, and to allude, at the same time, to her birth, styles her (*Orest.* act. v.) by the epithet *ομματα κρυφωσιγενος*, *with aspect lovely as the wings of the Swan.*

‡ No figure was more frequent on the ships of the ancients than that of the Swan; it appeared on the prow, and the mariners esteemed it of good omen.

gently

ently inflated, are the sails which impel the animated machine *.

Proud of his superiority, and emulous of distinction, the Swan seems forward to unveil his beauties; seeks to charm the spectators, and to command their applause. And the sight indeed captivates the eye, whether we behold the winged fleet at a distance gliding through the water, or view one, invited by signals †, approach the shore, and display his elegance and grace by a thousand soft, sweet, undulating motions ‡.

To the endowments bestowed by nature, the Swan joins the possession of liberty. He is none of those slaves which we can constrain or imprison §. Even on our artificial lakes, he retains so much of the spirit of independence as to exclude every idea of servitude and capti-

* Finely described by our sublime poet, Milton:

“ The swan with arched neck

“ Between her white wings mantling proudly, rows

“ Her state with oary feet.” *Paradise Lost*, Book vii.

† The Swan swims with much grace and rapidity when he chooses; he comes to those who call him. *Salerne*. The same author says, that this call is the word *godard*. According to Frisch, he answers to the name *Frank*.

‡ Aldrovandus.

§ A Swan confined in the court-yard is always melancholy; the gravel hurts his feet; he makes every effort to escape, which he would certainly effect, were not his wings clipt at each moult. “ I have seen one,” says M. Baillon, “ which lived in this condition three years; it was restless and dejected, always lean and silent, insomuch that its voice was never heard; it was plentifully fed however with bread, bran, oats, crabs, and fish; it flew away when its wings were neglected to be clipt.”

vity*. He roves at will on the water, lands on the shore, wanders to a distance, or shelters himself under the brink; lurks among the rushes, or retires to the remotest inlets: then, leaving solitude, he returns to society and to the enjoyment which he receives by approaching man; provided we are hospitable and friendly, not harsh and tyrannical.

Among our ancestors, too simple or too wise to fill their gardens with the frigid beauties of art, instead of the lively beauties of nature, the Swans formed the ornament of every piece of water †. They cheared the gloomy ditches round castles ‡, they decorated most of the rivers §, and even that of the capital ||: and one of our most feeling and amiable princes ¶ took pleasure in stocking the basins of his royal mansions with these beautiful birds. We may at present enjoy the same spectacle on the fine waters of Chantilly, where the Swans are the chief ornament of that truly delicious place, of which every thing bespeaks the noble taste of its owner.

* The tame Swan likes freedom, and will not be confined, *Salerne*.

† This taste was not unknown to the ancients; the tyrant Gelo constructed at Agrigentum a pool for feeding Swans. *Aldrovandus*.

‡ *Aldrovandus*.

§ According to Volaterran, there were no less than four thousand on the Thames.

|| *Salerne*.

¶ Francis I.

The Swan swims so fast, that a man, walking with hasty strides along the banks, can hardly keep pace with it. What Albin says of this bird "that it swims well, walks ill, and flies in-
"differently," is true only of the flight of the Swan degraded by domestication; for when free, and especially when wild, it flies very loftily and vigorously. Hesiod gives it the epithet of *αεσπιπότης* *: Homer classes it with the great migratory birds, the cranes and the geese †; and Plutarch attributes to two Swans what Pindar sung of two eagles, that Jupiter dispatched them from the opposite extremities of the world, to discover the middle by their meeting.

The Swan, superior in every respect to the goose, which lives only on herbs and grain, procures itself a rarer and more delicate food ‡. It continually practises wiles to ensnare and catch fish: it assumes a thousand different attitudes, and draws every possible advantage from its dexterity and strength. It evades or even resists its enemies: an old Swan fears not in the water the strongest dog: a stroke of its wing could break a man's leg, so violent it is, and so sudden. Nor does the Swan dread any ambush or any

* *i. e.* that flies to the clouds.

† Iliad ii.

‡ The Swan lives on grain and fish, particularly eels; it swallows also frogs, leeches, and water slugs; it digests as quickly as the duck, and eats largely. *M. Baillon.*

foe; for its courage equals its address and its force *.

The wild Swans fly in great flocks, and the tame Swans likewise walk and swim in company †. Every thing marks their social instinct; and that instinct, the sweetest in nature, bespeaks innocent manners, peaceful habits, and that delicate and sensible disposition which seems to bestow on the actions that flow from it, the merit of moral qualities ‡. And the Swan prolongs its placid, joyous existence to extreme age §. All observers ascribe to it prodigious longevity: some represent it as even passing the term of three centuries; which must certainly be an exaggeration. But Willughby saw a goose, which was proved to have lived an hundred years; and he concludes from analogy that the period of the Swan must extend farther; both because it is larger, and because its eggs require longer time to hatch: for incubation in

* The Swan, says the same observer, is perpetually contriving to ensnare fish, which are its favourite food. . . . It can avoid the blows which its enemies aim at it. If a ravenous bird threatens the young, the parents will defend them intrepidly; they range round them, and the plunderer dares not to approach: if dogs assail them, they go before and make an attack. The Swan dives and escapes if the force of its enemy prove superior to the resistance which it can make. The Swans are seldom ever surprized by foxes and wolves, but in the darkness of night and during sleep,

† Aristotle, *lib.* viii. 12.

‡ Ælian.—Aristotle.—Bartholin,

§ Aristotle.—Aldrovandus,

birds corresponds to gestation in quadrupeds, and bears some relation, perhaps, to the body's growth, which is proportional to the duration of life. The Swan requires two years to attain its full size, which is a very considerable time; since, in birds, the developement is much quicker than in quadrupeds.

The female Swan sits six weeks at least *; she begins to lay in the month of February; and, as with the goose, there is a day's interval between the dropping of each egg. She has from five to eight, and commonly six or seven †; they are white and oblong, covered with a thick shell, and are of a very considerable size. The nest is placed sometimes on a bed of dry herbs on the bank ‡; sometimes on a heap of broken reeds, heaped and even floating on the water ||. The amorous pair lavish the sweetest caresses, and seem in their pleasures to seek all the gradations of voluptuousness. They begin by entwining their necks; thus they breathe the intoxication of a long embrace §; they communicate the fire

* Willughby.

† Five or six. Willughby.—Seven at most. Schwenckfeld.—Two or three; sometimes six. Salerna.

‡ Schwenckfeld.

|| Frisch.

§ *Tempore libidinis blandientes inter se mas & fœmina, alternatim cum suis collis inscunt, velut amplexandi gratiâ; nec mora, ubi coierint, mas conscius læsam a se fœminam fugit; illa impatiens fugientem insequitur. Nec diutina noxa quin reconcilientur; fœmina tandem maris persecutione relicta, post coitum frequenti caudæ motu & rostri, aquis se mergens, purificat.* Johnston.

which

which kindles in their veins; and after the male has fully indulged his appetite, the female still burns; she pursues, excites him anew, and then leaves him, with regret, to wash in the water, and quench her remaining ardor *.

The fruits of these rapturous loves are tenderly cherished and fostered. The mother gathers, night and day, the young under her wings, and the father is ready to defend them with intrepidity against every assailant †. But his courage, on such occasions, bears no comparison to the fury with which he attacks a rival that intrudes on the possession of his beloved object ‡. He then forgets his mildness, becomes ferocious,

* Hence the opinion of its pretended modesty, which, according to Albertus, is such, that it will not eat after the moments of fruition till it has washed itself. Dr. Bartholin, improving on this idea, asserts, that, to cool its ardour, it eats nettles;—a receipt which would seem as proper for a doctor as for a Swan.

† Morin's *Dissertation on the song of the Swan*—and Albertus.

‡ The Charente has its source in two springs, the one called *Charançat*, and the other, the wonderful abyss, *Louvre*; which, joining their streams, give existence and name to the Charente: these afford a retreat to an innumerable multitude of Swans, the most amiable, the most beautiful, the most familiar of all the river birds: it is true, they are choleric and desperate when provoked, which has been witnessed in a house adjoining to the said *Louvre*. Two Swans having attacked each other so furiously as almost to kill each other, four others of their companions hastened to the spot, and, as if they had been human beings, endeavoured to separate them, and to conciliate them into concord and mutual friendship; indeed, this deserved more the name of prodigy than any other appellation. But if one treat them with gentleness, and coax and praise them a little, they will shew themselves mild and peaceful, and take pleasure in seeing the face of man. *Cosmographie du Levant, par André Thevet; Lyons, 1554, pp. 189 and 190.*

and

and fights with obstinate rancour; and a whole day is often insufficient to terminate the quarrel. They begin with striking violently their wings, then join close, and persist till commonly one of them is killed; for they strive to stifle each other by locking the neck, and forcibly holding the head under water *. It was probably these combats that made the ancients imagine that the Swans devoured one another †. Nothing is wider of the truth; only in this, as in other cases, furious passions originate from a passion the most delicious; and it is love that begets war ‡.

At every other time, their habits are peaceful, and all their sentiments are dictated by love. As attentive to neatness as they are addicted to pleasure, they are assiduous each day in the care of their person: they arrange their plumage, they clean and smooth it; they take water in their bill, and sprinkle it on their back and wings with an attention that implies the desire of pleasing,

* We certify all these facts as eye-witnesses. *M. Merin.*

† Aristotle, *lib. ix. 1.*—Ælian was still worse informed, when he said the Swan sometimes kills its young. These false ideas rested less perhaps on facts in natural history, than on mythological traditions. Indeed, all the *Cygnuses* in fable were exceeding wicked personages:—*Cygnus*, the son of Mars, was killed by Hercules, because he was a robber: *Cygnus*, the son of Neptune, having stabbed Philonome his mother, was killed by Achilles; and lastly, the beautiful *Cygnus*, friend of Phaeton and son of Apollo, was, like him, cruel and inhuman.

‡ Frisch asserts that the older Swans are the most vicious, and harass the younger; and that, to secure tranquillity in the hatches, the number of these old males should be diminished.

and

and which can only be repaid by the consciousness of being loved. The only time when the female neglects her attire, is that of incubation: her maternal solicitude then entirely occupies her thoughts, and hardly does she spare a few moments for the relief and support of nature.

The cygnets are hatched very ugly, and covered only with a gray or yellowish down, like goslings. Their feathers do not sprout till a few weeks after, and are still of the same colour. This unsightly plumage changes after the first moult, in the month of September: then they assume many white feathers, and others rather flaxen than gray, especially on the breast and the back. This laced plumage drops at the second moult, and it is not till eighteen months, or even two years, that these birds are invested with their robe of pure and spotless white; nor before that age can they have young.

The cygnets follow their mother the first summer, but they are compelled to leave her in the month of November, being chased away by the adult males, who wish to enjoy entirely the company of the females. These young birds, exiled from their family, unite in one body, and never separate till they pair.

As the Swan often eats marsh-plants, and particularly the *algæ*, it prefers rivers of a smooth and winding course, whose banks are well clothed with herbage. The ancients have

cited

cited the *Meander**, the *Mincio*†, the *Strymon*‡, the *Cayster*||, as streams covered with Swans §. Paphos, the loved isle of Venus, was filled with them ¶. Strabo ** speaks of the Swans of Spain; and according to Ælian †† they were seen, at times, on the sea of Africa. From this and other accounts ‡‡, we may conclude, that the species penetrates into the regions of the south: yet the north seems the true country of the Swan, where it breeds and multiplies. In the provinces of France, wild Swans are scarce seen but in the hardest winters |||. Gefner says, that

* Theoprit. *Idyl.* 19.

† *Et qualem infelix amisit Mantua campum,
Pascensem nireos herbofo flumine cygnos.*

Virg. *Georg.* ii. 198.

Mincius ingenti cygnos habet undâ natantes.

Bap. Mantuan.

‡ Belon remarks, that even at this day great numbers of Swans are seen on the Strymon.

|| Homer, *Iliad* ii.—Propertius, *Eleg.* 9.—Ovid, *Metam.* 25.

§ We must add the Po:—

. . . *piscosove amne Padusæ
Dant sonitum rauci per stagna loquacia cygni.*

Virg. *Æn.* xi. 457.

. . . *Eridani ripas diffugiens nudavit olor.*

Sil. Ital. *lib.* xiv.

¶ Schol. in *Lycophr.*

** *Geogr. lib.* iii.

†† *Hist. Animal. lib.* x. 36.

‡‡ According to Camel, the Swan occurs at Luçon, where it is called *tagac* (*Philos. Transf.* N° 285); but this author does not tell us whether it is the tame breed transported, or the natural wild kind, that occurs in this capital of the Philippines.

||| Observations of Messrs. Lottinger, de Querhoënt, and de Piolenc.—“ In hard winters, they come upon the Loiret.” *Salerne*.—“ In 1709, the Swans, driven from the north by the extreme
“ cold,

that in Switzerland, a long and severe winter is expected, when many Swans arrive on the lakes. In the same cold season, they appear on the coasts of France and of England, and on the Thames *. Many of our tame Swans would then join the wild ones, did we not clip the great feathers of their wings.

Yet some Swans nestle and pass the summer in the northern parts of Germany, in Prussia † and Poland ‡; and on nearly the same parallel of latitude, they are found on the mighty rivers about Azof and Astracan ||; in Siberia, among the Jakutes §; in Seleginskoi, and as far as Kamtschatka ¶. During the breeding season, they are also found in immense numbers on the streams and lakes of Lapland: there they feed on the *larvæ* of the gnat **, which cover the surface of the water. The Laplanders see them arrive

" cold, appeared numerous on the coasts of Brittany and Nor-
" mandy." *Frisch*.—" The intense cold, and the storms of this
" winter, have brought on the coast many sea birds, and, among
" others, many Swans."—*Letter dated from Mentaudoin, 20th March*
1776.

* British Zoology.

† Klein and Schwenckfeld.

‡ Rzaczynski.

|| Guldenstaed.

§ Gmelin.

¶ The Swans are so common in Kamtschatka, both in winter and summer, that every person eats of them: in the moulting season, they are hunted with dogs, and felled with clubs: in winter they are caught on the rivers. *Kracheninickoff*.

** *Culex Pipiens*. Linn.

in the spring from the German ocean *: part stop in Sweden, and especially in Scania †. Horrebow affirms, that they continue the whole year in Iceland, and inhabit the sea when the fresh waters are frozen ‡. But if a few do remain, the bulk of them follow the common law of migration, and fly from a winter, which, as the shoals of ice are driven from Greenland, is attended with greater rigour in Iceland than in Lapland.

These birds are as numerous in the northern parts of America as in those of Europe. They inhabit Hudson's Bay, and hence the name *Carry Swan's-nest*, given by Captain Button to a point near the southern extremity of the long barren island that stretches northwards in the bay. Ellis found Swans in *Marble Island*, which is only a pile of broken rocks round some pools of fresh water ||. They are likewise very numerous in Canada §, from whence they appear to migrate

* Observation of Samuel Rheen, pastor at Pitha in Lapland, as cited by Klein.

† *Fauna Suecica*.

‡ He adds, that "during moult the Swans advance into the land, and seek in flocks the waters on the mountains; it is at this time that the inhabitants pursue them, and catch them, or kill them easily, because they cannot fly. Their flesh is good, especially the breast of young ones, which makes a delicate dish; their feathers, and chiefly their down, form an important article of trade."

|| Hist. Gen. des Voy. tom. xiv. 670.

§ The Swans, and other great river birds, swarm every where, except near dwellings, which they never approach. *Charlevoix*.—

Among

migrate for winter quarters, into Virginia * and Louisiana †. And these are found, on comparison, to differ in no respect from our wild Swans. With respect to the black-headed Swans of the Falkland Islands, and of some of the coasts of the South Sea, mentioned by travellers ‡, the species is so ill described, that we cannot decide whether it belongs to our Swan.

The differences which subsist between the wild and the tame Swan, have led to the opinion that they form two distinct and separate

Among the Illinois there are plenty of Swans. *Lettres Edifiantes*.—Swans, which are called *horhey*, are seen principally near the Epicyns. *Theodat*.

* The Swans are numerous in Virginia during winter. *De Lait*.

† The Swans of Louisiana are such as those in France, with this difference, that they are larger; however, notwithstanding their bulk and their weight, they rise so high in the air, that often they cannot be distinguished but by their shrill cry: their flesh is very good to eat, and their fat is a specific for cold humours. The natives set great value on the feathers of Swans; they form them into diadems for their chiefs, and into caps, and twist the little feathers, as the wig-makers do hair, into cloaks for their women of rank. The young persons of both sexes make themselves tippets with skin covered with its down. *Dupratz*.

‡ Among the birds with palmated feet, the Swan holds the first rank; it differs not from those of Europe, except by its neck, which is of a velvet black, and makes an admirable contrast with the whiteness of the rest of its body; its legs are flesh-coloured. This species of Swan, which we saw in the Malouine islands, occurs also on the river de la Plata, and at the Straits of Magellan, where I killed one in the bottom of Port Galant. *Bougainville*.—On the shore of the South Sea, we saw some Swans; they are not so large as ours; are white, except the head, half the neck, and the legs, which are black. *Coral*.

species.

species *. The wild Swan is smaller; its plumage is more inclined to gray than white †; it has no caruncle under the bill, which always is black at the point, and not yellow, except near the head. But the intensity of colour, and even the caruncle or wattle on the front, are to be regarded as less the characters of nature, than the tokens and impressions of domestication. The Swans are subject to variations in the colours of their plumage and of their bill, as well as other tame birds; and Dr. Plott ‡ mentions a tame Swan, whose bill was red. Besides, the difference in the colour of the plumage is not so great as would at first appear; we have seen tame Swans hatched gray, and continue long of that cast. This colour subsists still longer in the wild ones, and yet they grow white through age: for Edwards observed, that, in the hard winter of 1740, many wild Swans were seen in the neigh-

* Willughby and Ray.

† N. B. The Swan figured in the *Planches Enluminées* is the tame Swan; a wild one, preserved in the king's cabinet, is entirely of a white gray, only deeper and almost brown on the back and the crown of the head.

‡ British Zoology.—N. B. We may also mention the Swan which Redi saw in the parks of the Grand Duke, which had the feathers of the head and neck tipped with a yellow or orange tinge; a peculiarity which may explain the epithet *purpurei*, applied by Horace to the Swans. (The expression is "*purpureis ales oloribus*," *Carm. lib. iv. Od. 1*. But it is to be observed, that *πορφύρεος*, among the Greeks, and *purpureus* among the Latins, signified originally any pure virgin colour, and was afterwards appropriated to purple. Thus Virgil has "*purpureo narcisso, purpureo capillo, purpureum ver, purpureum lumen, purpureum mare*."—T.)

bourhood of London, entirely white. The tame Swan must therefore be regarded as a breed derived anciently and originally from the wild species. Klein, Frisch, and Linnaeus have formed the same opinion; though Willughby and Ray pretend the contrary.

Belon reckons the Swan to be the largest of the aquatic birds; which is true, excepting, however, that the pelican has a much greater alar extent, that the albatross is as bulky, and that the flamingo is taller on its legs. The tame Swans are invariably somewhat thicker and larger than the wild sort: some of them weigh twenty-five pounds, and measure, from the bill to the tail, four feet and a half; the breadth of the wings eight feet. The female is, in every dimension, rather smaller than the male.

The bill usually exceeds two inches in length, and, in the tame kind, has above its base a fleshy tubercle, inflated and prominent, which gives a sort of expression: this tubercle is covered with a black skin; and the sides of the face, under the eyes, are covered with a skin of the same colour. In cygnets of the domestic breed, the bill is of a leaden cast, and afterwards becomes yellow or white, with the point black. In the wild kind, the bill is entirely black, with a yellow membrane on the front: its form seems to be copied in the two most numerous families of the palmipede birds, the geese and ducks. In all of these the bill is flat, thick, indented at the edges,

rounded into a blunt tip *, and terminated on the upper mandible by a nail of horny substance.

In all the species of this numerous tribe, there is, under the outer feathers, a thick down, which prevents the water from penetrating to the body. In the Swan this down is exceedingly fine and soft, and perfectly white: it is worked into muffs and furs, that are equally delicate and warm.

The flesh of the Swan is black and hard; and the magnificence, rather than the excellence of the dish, might recommend it in the Roman entertainments †. Our ancestors affected the same ostentation ‡. Some persons have assured me that the cygnets are as good as geese of the same age.

Though the Swan is a silent bird, its vocal organs have the same structure as in the most loquacious of the water fowl. The *trachea arteria* descends into the *sternum*, makes a bend ||, rises, rests on the clavicles, and thence, by a se-

* *Tenet os sine acumine rostrum.* Ovid.

† See Athenæus.—The Romans fattened it as they did the goose, having put out its eyes, or shut it up in a dark prison. See Plutarch, *De esu carn.*

‡ Belon.—The grandees among the Muscovites serve up Swans in their entertainments to strangers. *Aldrovandus.*

|| According to Willughby, this conformation is peculiar to the wild Swan, and is not the same in the tame Swan; which seems to give occasion to the difference which we shall remark between their cries. Yet this is insufficient to constitute two distinct species; for the variation exceeds not the sum of the impressions, both internal and external, which the domestic habits may in time produce.

cond inflexion, it reaches the lungs. At the entrance and above the bifurcation, is placed a true *larynx* furnished with its *os hyoides*, open in its membrane like the lip of a flute: below this *larynx*, the canal divides into two branches, which, after each forms an inflation, adhere to the lungs *. This structure, at least what regards the position of the *larynx*, is common to many aquatic birds; and even some of the waders have the same folds and inflexions of the *trachea arteria*, as we have remarked in the crane: and, in all probability, it gives the voice that sonorous and raucous intonation, those trumpet and clarinet sounds which echo from the air and in the water.

Yet the ordinary voice of the tame Swan is rather low than canorous; it is a sort of creaking, exactly like what is vulgarly called the swearing of a cat, and which the ancients denoted by the imitative word *drensure* †. It would seem to be an accent of menace or anger, nor does love appear to have a softer ‡.

* Bartholin. *Cygni anatome ejusque cantus*. Hafniæ, 1680.—Aldrovandus.

† *Grus gruit, inque glomis cygni prope flumina drenfant*. Ovid.

‡ Observations made at Chantilly, according to the directions of the Marquis Amezaga, and which M. Grouvelle, military secretary to his serene highness the prince of Conde, has been so obliging as to draw up.—“ Their voice in the season of love, and the accents “ which they breathe in the softest moments, resemble more a murmur than any sort of song.” See also, in the *Memoires de l’Academie des Inscriptions*, a dissertation of M. Morin, entitled, *Why Swans, which sung so well formerly, sing so ill now*.

Swans, almost mute, like ours in the domestic state, could not be those melodious birds which they have celebrated and extolled. But the wild Swan appears to have better preserved its prerogatives; and with the sentiment of entire liberty, it has also the tones. The bursts of its voice form a sort of modulated song *; yet the shrill and

* The Abbe Arnaud, whose genius is formed to revive the precious remains of elegant and learned antiquity, has obligingly concurred with us in verifying and appreciating what the ancients have said on the song of the Swan. Two wild Swans which have settled on the magnificent pools of Chantilly, seem to have offered themselves for this interesting observation. The Abbe Arnaud has gone so far as to mark their song, or rather their harmonious cries; and he writes us in the following terms: "One can hardly say that the Swans of Chantilly sing, they cry; but their cries are truly and constantly modulated; their voice is not sweet; on the contrary, it is shrill, piercing, and rather disagreeable; I could compare it to nothing better than the sound of a clarionet, winded by a person unacquainted with the instrument. Almost all the melodious birds answer to the song of man, and especially to the sound of instruments: I played long on the violin beside our Swans, on all the tones and chords; I even struck unison to their own accents, without their seeming to pay the smallest attention: but if a goose be thrown into the basin where they swim with their young, the male, after emitting some hollow sounds, rushes impetuously upon the goose, and, seizing it by the neck, he plunges the head repeatedly under water, striking it at the same time with his wings; it would be all over with the goose, if it were not rescued: the Swan, with his wings expanded, his neck stretched, and his head erect, comes to place himself opposite to his female, and utters a cry, to which the female replies by another, which is lower by half a tone. The voice of the male passes from A (*la*) to B flat (*si bemol*); that of the female, from G sharp (*sol dièse*) to A. The first note is short and transient, and has the effect of that which our musicians call *sensible*; so that it is not detached from the second, but seems to *slip* into it. Observe that, fortunately for the ear, they

and scarce diversified notes of its loud, clarion sounds, differ widely from the tender melody, the sweet and brilliant variety of our chanting birds.

But it was not enough that the Swan sung admirably; the ancients ascribed to it a prophetic spirit. It alone, of animated beings, which all shudder at the prospect of destruction, chanted in the moment of its agony, and, with harmonious sounds, prepared to breathe the last sigh. When about to expire, they said, and to bid a sad and tender adieu to life, the Swan poured forth those accents so sweet, so affecting, and which, like a gentle and doleful murmur, with

"they do not both sing at once; in fact, if while the male sounded B flat, the female struck A, or if the male uttered A, while the female gave G sharp, there would result the harshest and most insupportable of discords. We may add, that this dialogue is subjected to a constant and regular rhythm, with the measure of two times. The inspector assured me that, during their amours, these birds have a cry still sharper, but much more agreeable."—We shall add an interesting observation which was communicated to us after the first pages of this article were printed. "There is a season when the Swans assemble together, and form a sort of commonwealth; it is during severe colds. When the frost threatens to usurp their domain, they congregate and dash the water with all the extent of their wings, making a noise which is heard very far, and which, whether in the day or the night, is louder in proportion as it freezes more intensely. Their efforts are so effectual, that there are few instances of a flock of Swans having quitted the water in the longest frosts, though a single Swan, which has strayed from the general body, has sometimes been arrested by the ice in the middle of the canals." *Extract of a note drawn up by M. Grouvelle, military secretary to his serene highness the prince of Condé.*

a voice

a voice low *, plaintive, and melancholy †, formed its funereal song ‡. This tearful music was heard at the dawn of day, when the winds and the waves were still ||: and they have been seen expiring with the notes of their dying hymn §. No fiction of natural history, no fable of antiquity, was ever more celebrated, oftener repeated, or better received. It occupied the soft and lively imagination of the Greeks: poets ¶, orators **, even philosophers ††, adopted it, as a truth too pleasing to be doubted. And well may we excuse such fables; they were amiable and affecting; they were worth many dull, insipid truths; they were sweet emblems to feeling minds. The Swan, doubtless, chants not its approaching end; but, in speaking of the last flight, the expiring effort of a fine genius, we shall ever, with tender melancholy, recal the classical and pathetic expression, *It is the song of the Swan!*

* *Parvus cygni canor.* Lucret. lib. iv.

† *Olorum morte narratur flebilis cantus.* Plin.

‡ According to Pythagoras, it was the song of exultation upon the immediate prospect of passing into a happier state.

|| Aldrovandus.

§ Aristotle, lib. ix. 12.

¶ Callimachus, Æschylus, Theocritus, Lucretius, Ovid, Propertius, speak of the song of the Swan, and draw comparisons from it.

** Cicero, Pausanias, and others.

†† Socrates in Plato, and Aristotle himself, but from vulgar opinion and foreign report.

[A] Specific character of the Wild Swan, *Anas Cygnus*: "Its bill is semicylindrical and deep black, its cere bright yellow, its body white."—Specific character of the Tame or Mute Swan, *Anas Oler*: "Its bill is semicylindrical and deep black; its cere black, its body white." Cygnets are even at present fattened at Norwich about Christmas, and sold for a guinea a-piece. In Edward the Fourth's time none was permitted to keep Swans, who possessed not a freehold of at least five marks yearly value, except the king's son: and by an act of Henry the Seventh, persons convicted of taking their eggs, were liable to a year's imprisonment and a fine at the will of the sovereign.

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THE GOOSE .

The G O O S E *.

L' OIE. *Buff.*

1. *Anas Anser*, ferus, Linn. and Gmel.
Anser Sylvæstris. Briss. and Frisch.
Anser Ferus. Gesner, Aldrov. Johnst. Will. Sibb. &c.
The Wild Goose. Albin and Will.
The Gray-lag Goose. Penn. and Lath.
2. *Anas Anser*, domesticus. Linn. and Gmel.
Anser Domesticus. Gesn. Aldrov. Johnst. Sibb. &c.
The Tame Goose. Penn. and Lath.

IN every genus, the primary species have borne off all the eulogies, and have left to the subordinate species only the scorn arising from the comparison. The Goose is in the same predicament with regard to the swan, as the ass when viewed beside the horse; neither of them is esti-

* In Greek $\chi\eta$; in modern Greek $\chi\eta\alpha$: in Latin *Anser*: in Arabic *Uze*, *Avaz*, *Kaki*: in Italian *Oca*, *Papara*; the wild goose *Oca Salvatica*, the tame one *Oca Domestica*: in Spanish *Ganso*, *Pato*; the gander *Ansar*, *Ansarea* or *Bivar*; the gosling *Patico*, or *Hijo de Pato*; the wild goose *Ansar Bravo*: in Catalanian *Hoca*: in German *Ganz*, *Ganser*, *Ganserich*; the gosling *Ganselin*; the wild goose has the epithets *Wilde*, *Graue* (gray), and *Schnee* (snow). In Flanders the gander is called *Gans*, and the Goose *Goes*: in Switzerland *Gans*: in Swedish *Goas*, and the wild kind *Wille Goas*: in Danish *Gaas*: in Polish *Ges*, *Gasior*, and the wild one *Ger Dzika*; which by the Greenlanders is named *Nerlech*; by the Hurons *Ahonque*; by the Mexicans *Tlalacatl*. The negroes on the gold coast call the tame *Apatta*.

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mated at its true value. The first step of inferiority, appearing a real degradation, and recalling, at the same time, the idea of a more perfect model, exhibits, instead of the absolute qualities of the secondary species, only an unfavourable contrast with the primary. Laying aside, then, for a moment, the too noble image of the swan, we shall find, that, among the inhabitants of our court-yards, the Goose holds a distinguished rank. Its corpulence, its erect carriage, its grave demeanour, its clean glossy plumage, and its social disposition, which renders it susceptible of a strong attachment and a durable gratitude; finally, its vigilance, celebrated in high antiquity: all concur to recommend the Goose as one of the most engaging, and even of the most useful, of our domestic birds. For, besides the excellence of its flesh and of its fat, with which no bird is more abundantly provided, the Goose furnishes the delicate down for the beds of the luxurious, and the quill, the instrument of our thoughts, which now writes its eulogy.

The Goose may be maintained at no great expence, and reared with moderate attention*. It is reconciled to the ordinary life of poultry, and suffers itself to be inclosed with them in the same court†; though that mode of existence,

* Schwenckfeld.

† Belon.

and especially that constraint, is little suited to its nature: for to raise numerous flocks of large Geese, it is requisite that they be kept near pools or streams, surrounded with spacious margins, with grassy patches or waste grounds, where they may feed and sport at liberty *. They are not permitted to enter meadows, because their dung burns up the good herbage, and because they dig into the soil with their bill. For the same reason, they are carefully removed from green corn, and are not permitted to range the fields till after harvest.

Though the Geese can feed on grass and most herbs, they prefer trefoil, fenugreek, vetches, succory, and especially lettuce, which is the greatest regale of the little goslings †. We should carefully extirpate from their walk, henbane, hemlock, and nettles ‡, whose stings are very pernicious to the young birds. Pliny asserts, perhaps on slight foundation, that the Geese eat iron-wort for a purge.

The domestication of the Goose is neither so ancient nor so complete as that of the hen. The latter lays at all seasons, more in summer, less in winter; but the former are unproductive in the winter, and seldom have eggs before the month

* *Anser nec sine herbâ, nec sine aquâ facile sustinetur.* Pallad.

† *Lactuca mollissimum olus libentissime ab illis appetitur & pullis utilissima esca. Ceterum vicia, trifolium, scænum græcum, & agrestis in-tiba illis conferatur.* Columella.

‡ Aldrovandus.

of March. Yet such as are well fed begin to lay in February, and those which are more sparingly kept, often defer till April. The white, the gray, the yellow, and the black sorts, follow that rule; only the white ones seem to be more delicate, and are really more difficult to rear. None of them ever makes its nest in our court-yards*; they lay only every two days, but always in the same place. If their eggs be removed, they make a second and a third deposit, and even a fourth in warm countries†. It is, no doubt, by reason of these successive layings, that Salerne says they continue till June. But if the eggs be constantly withdrawn, the Goose will still persist to lay, till at last she wastes away and dies. For the eggs, particularly those of the first laying, amount to a large number; at least seven, and commonly ten, twelve, or fifteen, and even sixteen, according to Pliny‡. Such may be the case in Italy; but in the inte-

* They sink into straw, there to lay, and the better to conceal the eggs; they have preserved this habit of the wild Geese, which probably penetrate into the thickest rushes and marsh-plants, to hatch; and in places where the tame ones enjoy almost entire freedom, they gather some materials on which they deposit their eggs. "In the island of St. Domingo," says M. Baillon, "where many of the inhabitants have tame Geese like ours, they lay in the savannas, near the brooks and trenches; they form the bed with some dry herbs, the stalks of maize or of millet: the females are less prolific there than in France, their greatest laying not exceeding seven or eight eggs."

† Aldrovandus.

‡ *Lib. v. 55.*

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rior provinces of France, as in Burgundy and Champagne, the greatest nests contain but twelve eggs. Aristotle observes *, that often young Geese, like pullets, lay addle eggs before having intercourse with the male. This fact is applicable to all birds.

But if the domestication of the Goose is more modern than that of the hen, it seems to have been more ancient than that of the duck, whose original features are less changed, so that the interval is greater between the wild and the tame Goose, than between those two breeds of ducks. The tame Goose is larger than the wild, the parts of its body are more extended and more pliant, its wings are neither so strong nor so stiff, the whole colour of its plumage is changed, and it retains scarce any trace of its primitive condition; it seems to have even forgotten the sweets of its ancient freedom, at least it seeks not, like the duck, to recover them. Servitude appears to have enfeebled it; it no longer has strength to accompany or follow the flight of its savage brethren, who, proud of their force, neglect and even despise it †.

* *Lib. vi. 12.*

† "I have enquired," says M. Baillon, "of many fowlers who kill wild Geese every year, but I could never meet with one who had seen the tame birds among the wild, or who had killed hybrids. If tame Geese sometimes escape, they do not become free; they go to mingle in the neighbouring marshes with others equally tame, and thus only change masters." *Note communicated by M. Baillon.*

That

That a flock of tame Geese prosper and increase by a quick multiplication, it is requisite, says Columella *, that the number of the females be triple that of the males. Aldrovandus allows six geese to one gander; and it is usual in our provinces to admit twelve, and even twenty. These birds prepare for the congress of love by first sporting in the water. They come out to copulate, and continue longer united and in closer embrace than most others; for the act is not a simple compression, but a real intromission, the male being provided with the proper organ †; and hence the ancients consecrated the Goose to Priapus.

The male shares with the female only the pleasures of love; he devolves on her the whole care of incubation ‡. She covers constantly and assiduously, and would even neglect to eat and drink, were not food placed near the nest §. Economists advise, however, to entrust the incubation and rearing of the goslings to a hen; so that the Goose may have a second and even a third hatch. The last one is left to the proper mother; and she can hatch ten or twelve eggs, whereas a hen cannot succeed with more than five. It would be curious to know whether, as

* *De Re Rust.* lib. viii. 13.

† Aristotle, *Hist. Animal.* lib. iii.

‡ *Id. Ibid.*

§ Aldrovandus.

Columella asserts, the Goose, wiser than the hen, will cover no eggs but her own.

Thirty days are required for incubation, as in most of the large birds *; unless, as Pliny remarks, the weather be very hot, and then it succeeds in twenty-five days †. During the sitting, a vessel filled with grain, and another with water, are placed at some distance from the eggs, which the Goose never quits but to take a little food. It has been remarked, that she seldom ever lays on two consecutive days, and that there is always an interval of at least twenty-four hours, and sometimes of two or three days, between the exclusion of each egg.

The callow goslings are fed first with the refuse of the mill, or with rich bran kneaded with hashed succory or lettuce. This is the receipt of *Columella*, who recommends besides to fill the young ones bellies before they are suffered to follow their mother to the pasture-ground; for otherwise, if they are tormented with hunger, they will set obstinately on the stalks of herbs and little roots, and in straining to tear them up, will dislocate or break their neck ‡. Our common practice in Burgundy is to feed the newly hatched goslings with hashed chervil;

* Aristotle, *Hist. Animal. lib. vi. 6.*

† *Lib. x. 59.*

‡ *Saturetur pullus antequam ducatur in pascuum; si enim fame premitur, cum pervenerit in pascuum, fruticibus aut solidioribus herbis oblectatur ita pertinaciter, ut collum abrumpat. Columella,*

eight days after we add a little bran, slightly moistened: and care is taken to separate the parents when the provisions are served, for they would scarcely, it is said, leave any thing to their brood. They afterwards have oats given them; and as soon as they can easily follow their mother, they are conducted to the green-sward near the water.

Monstrous births are perhaps more common in Geese than in other domestic birds. Aldrovandus has caused to be engraved two of these monsters; the one has two bodies joined to a single head, the other has two heads and four legs proceeding from the same body. The excessive corpulence to which the Goose is naturally inclined, and which we seek to promote, must produce in its constitution alterations sufficient to affect its generative powers. In general, very fat animals are little prolific; for the over proportion of adipose substance changes the quality of the seminal fluid, and even that of the blood. When the head of an extremely fat Goose is cut off, nothing but a white liquor flows, and, upon opening it, not a drop of red blood can be seen*. In such cases the liver, from the obstruction occasioned by the grossness, swells to a prodigious size; nay, in a fatted Goose, the liver is often more bulky than all the other bowels together†. These fat livers, on which

* Collect. Academ. part. estrang. tom. iv. p. 146.

† *Aspice quam tumeat magno jecur anser majus.* Martial.

our gluttons set so high value, agreed also with the taste of the Roman Apiciuses. Pliny deems it an important question, to know what citizen invented that dish *. They fed the Goose with figs, to make the flesh more exquisite †; and they had discovered that it fattens much quicker in a narrow, dark place ‡. But it was reserved to our more than barbarous gluttony, to nail the feet, to put out or sew up the eyes of these unhappy animals; cramming them at the same time with little balls, and denying them drink, that they might suffocate in their fat §. Usually and more humanely we are contented with shutting them up for a month; and a bushel of oats is sufficient to make a Goose very fat. It is easy to know, by a very manifest external sign, when we should discontinue the feeding, and when the bird has received its due fat; for under each wing there is then a very distinct pellet of fat. It has been remarked, that the Geese bred near the margin of water are less expensive to maintain, lay earlier, and fatten more easily, than others.

* *Nostri sapientiores anseris jecoris bonitatem novere; fartilibus in magnam amplitudinem crescit, exemptum quoque lacte augetur; nec sine causâ in quæstione est qui primus, tantum bonum inveniret, Scipio Mæcellus vir consularis an M. Sestius eâdem ætate eques Romanus. Plin. lib. x. 22.*

† *Pinguibus aut sicis pastum jecur anseris albi. Horace.*

‡ *Columella.*

§ J. B. Porta, refining on this cruelty, dares to give a horrible receipt, of roasting the Goose alive, and eating it limb by limb, while its heart still beats. See Aldrovandus, *lib. iii. p. 133.*

Goose-fat was much esteemed by the ancients for topical applications, and as a cosmetic. They recommended it for rendering firm women's breasts after delivery, and for preserving the skin fresh and sleek. That prepared at Comagene, with a mixture of aromatics, was boasted as a medicine. Aldrovandus gives a list of recipes, where this fat enters as a specific in all diseases of the *matrix*; and Willughby asserts that goose-dung is the most certain remedy for the jaundice. The flesh itself is not very salubrious; it is heavy, and difficult to digest*: yet was the Goose the chief dish at the suppers of our ancestors; and not till after the introduction of the turkey from America, did the Goose, in our court-yards and in our kitchens, hold only the second place†.

The most valuable article furnished by the Goose, is its down: this is plucked more than once a-year. As soon as the goslings are grown stout and well feathered, and the quills of the wing begin to cross on the tail, which happens at the age of seven weeks or two months, they are stript under the belly, under the wings, and on the neck. Their first feathers are therefore plucked in the end of May, or the beginning of June: and five or six weeks after, that is, in the course of July, there is a

* Galen.

† Salerne and Schwencckfeld.

second plucking; and again a third in the beginning of September. During all that time, they are lean, their nourishment being diverted to the growth of the new feathers. But if they be left to recover their plumage early in autumn, or even at the close of summer, they will soon gain flesh, and afterwards grow fat, and against the middle of winter they will be very good for eating. The breeders are not plucked till a month or five weeks after incubation; but the ganders and geese which do not hatch may be stript twice or thrice annually. In cold countries, the down is richer and finer. The estimation in which the Romans held that brought from Germany, was more than once the cause of the soldiers neglecting their posts in that country; for whole cohorts dispersed in pursuit of Geese *.

It has been observed, that of tame Geese the great quills of the wings drop almost in a cluster in one night. They seem then bathful and timorous: they fly from a person's approach. Forty days are required for the protrusion of the new feathers; and at this time they continually essay their vigour and flap their wings.

Though the step of the Goose is slow, oblique, and heavy, flocks may be led to a vast

* *Plumæ e Germaniâ laudatissimæ . . . pretium plumæ in libras denarii quini . . . & inde crimina plerumque auxiliorum præfatis, a vigili statione ad hæc aucupia dimissis cohortibus totis. Plin. lib. x. 22.*

distance, by short journies *. Pliny says, that, in his time, they were conducted from the heart of Gaul to Rome, and that in these long marches, those most fatigued took the front ranks, that they might be supported and pushed forward by the body of the troop †. When they are collected closer together to pass the night, the slightest noise wakes them, and they all scream at once. They also make a loud clamour when food is given them; whereas the dog is mute, if offered this boon ‡. Hence Columella is led to say, that Geese are the surest guardians on a farm §; and Vegetius does not hesitate to assert, that they are the most vigilant sentinels that can be planted in a besieged city ||. Every body knows, that, on the Capitol, they discovered to the Romans the assault attempted by the Gauls, and thus saved Rome. In memory of that important and salutary service, the censor allowed each year a sum of money for maintaining Geese; while, on the same day, dogs were whipt in public, as a punishment

* Salerne.

† *Mirum a Morinis usque Romam pedibus venire: fessi proferuntur ad primos, ita ceteri stipatione naturali propellunt eos.* Plin. lib. x. 59.

‡ *Ælian, lib. xii. 33.*

§ *Anser rusticis gratus, quod solertiore curam præstat quam canis, nam clangore prodit insidiantem.* De Re Rustica. — Ovid, describing the hut of Philemon and Baucis, says, *Unicus anser erat minimæ custodia villæ.*

|| *De Re Milit. lib. iv. 26.*

for their criminal silence in so critical a moment*.

The natural cry of the Goose is very noisy, like the *clan* of a trumpet or clarion; it is very frequent, and may be heard at a great distance. But the bird has also other short notes, which it often repeats. If it is assailed or frightened, it stretches out its neck and gabbles with open mouth, and hisses like an adder. The Romans have expressed that odd sort of noise by the imitative words *strepit, gratitat, stridet* †.

Whether from fear or vigilance, the Goose repeats every minute its loud calls ‡: often the whole flock answer by a general acclamation; and of all the inhabitants of the court-yard, none is so vociferous or blustering. This great loquacity induced the ancients to give the name of Goose to indiscreet prattlers, bad writers, and low informers; as its awkward pace and its uncouth gestures make us apply the same appellation to silly and simple persons. But besides the marks of sentiment and of understand-

* *Est et anseri vigil cura, Capitolio testata defenso, per id tempus canum silentio proditis rebus. Quamobrem cibaria anserum censores imprimis locant. Eâdem de causâ supplicia annua canes pendunt inter ædem juventutis & summani, vivi in sambucâ arbore fixi. Lib. x. 22.*

† — argutos inter strepere anseres olores.

Virg. Ec. ix. 36.

Cacabat hinc perdix; hinc gratitat improbus anser.

Aut. Philomel.

‡ Aristotle, *Hist. Animal. lib. i. 1.*

ing which we discover in it *, the courage with which it protects its young, and defends itself against the ravenous birds †, and certain very singular instances of attachment and even gratitude, which the ancients have collected ‡, demonstrate that this contempt is ill-founded: and we can add an example of the firmest affection §. The fact was communicated to me by
a man

* The sense which the Goose possesses in the highest perfection seems to be hearing; Lucretius thinks that it is smell:

Humanum longe præsentit odorem

Romulidarum arcis servator candidus anser. Nat. Rer. lib. iv.

† Aldrovandus.

‡ Pliny, lib. x. 22.

§ We give this note in the artless and animated style of the keeper of Ris, an estate belonging to M. Anisson Dupéron, and the scene of this faithful and unshaken friendship. " Emmanuel was
" asked how the white gander called *Jacquot* was tamed with him.
" It is proper to observe that there were two ganders, a gray and
" a white, with three females: these two males were perpetually
" contending for the company of these three dames; when one or
" the other prevailed, he assumed the direction of them, and hindered
" the other from approaching. He who was master during the
" night, would not yield in the morning; and the two gallants
" fought so furiously, that it was necessary to run and part them.
" It happened one day, that, being drawn, to the bottom of the gar-
" den by their cries, I found them with their necks entwined, strik-
" ing their wings with rapidity and astonishing force; the three fe-
" males turned round, as wishing to separate them, but without
" effect; at last the white gander was worsted, overthrown, and mal-
" treated by the other: I parted them, happily for the white one,
" which would have lost his life. Then the gray gander set a
" screaming and gabbling and clapping his wings, and ran to join
" his mistress, giving each a noisy salute, to which the three dames
" replied, ranging themselves at the same time round him. Mean-
" while poor *Jacquot* was in a pitiable case, and retiring, sadly he
" vented

a man of veracity and information, to whom I am partly indebted for the care and attention which

" vented at a distance his doleful cries : it was several days before
 " he recovered from his dejection, during which time I had occa-
 " sion to pass through the court where he stayed ; I saw him always
 " thrust out from society, and each time I passed he came gabbling
 " to me, no doubt to thank me for the succour which I had given
 " him on his defeat. One day he approached so near me, showing
 " so much friendship, that I could not help caressing him by strok-
 " ing with my hand his back and neck, to which he seemed so sen-
 " sible as to follow me into the entrance of the court. Next day
 " as I again passed, he ran to me, and I gave him the same caresses,
 " with which he could not be surfeited ; but he seemed by his ges-
 " tures to desire that I should lead him to his dear mates ; I accord-
 " ingly did lead him to their quarter, and upon his arrival he be-
 " gan his vociferations, and directly addressed the three dames,
 " who failed not to answer him. Immediately the gray victor
 " sprung upon *Jacquot* : I left them for a moment ; he was always
 " the stronger ; I took part with my *Jacquot*, who was under ; I set
 " him over his rival, he was thrown under ; I set him up again : in
 " this way they fought eleven minutes, and by the assistance which
 " I gave, he obtained the advantage over the gray gander, and got
 " possession of the three dames. When my friend *Jacquot* saw him-
 " self master, he would not venture to leave his females, and there-
 " fore no longer came to me when I passed ; he only gave me at
 " a distance many tokens of friendship, shouting and clapping his
 " wings, but would not quit his prey, for fear that another should
 " take possession. Things went on in this way till the breeding
 " season, and he never gabbled to me but at a distance : when his
 " females however began to sit, he left them and redoubled his
 " friendship to me. One day having followed me as far as the ice-
 " house at the top of the park, the place where I must necessarily
 " part with him in pursuing my way to the Wood of Orangis, at
 " half a league's distance, I shut him in the park : he no sooner saw
 " himself separated from me than he vented strange cries. How-
 " ever I went on my road, and I was about a third advanced,
 " when the noise of a heavy flight made me turn round my head ;
 " I saw my *Jacquot* four paces from me : he followed me all the road,

which I have experienced at the royal press in printing my works. We have also received from St. Domingo an account pretty similar, and which shows that, in certain circumstances, the Goose appears capable of a very lively and strong personal attachment, and even of a sort of passionate friendship, which wastes and destroys it, when removed from the object of its affection.

As early as the time of Columella, the domestic Geese were distinguished into two kinds; that with the white, and that with the varie-

" partly on foot, partly on wing, getting before me and stopping
 " at the cross paths, to see what way I should take. Our expedi-
 " tion lasted from ten o'clock in the morning till eight in the even-
 " ing, and yet my companion followed me through all the wind-
 " ings of the wood, without seeming to be tired. After this he fol-
 " lowed and attended me every where, so as to become trouble-
 " some, I not being able to go to any place without his tracing my
 " steps, so that one day he came to find me in the church; another
 " time, as he was passing by the rector's window, he heard me talk-
 " ing in the room; and as he found the door open, he entered,
 " climbed up the stairs, and marching in, he gave a loud burst of
 " joy, to the no small affright of the rector.

" I am sorry, in relating such pleasing traits of my good and
 " faithful friend *Jacquot*, when I think that it was myself that first
 " dissolved the sweet friendship: but it was necessary that I should
 " separate him by force: poor *Jacquot* fancied himself as free in the
 " best apartments as in his own, and after several accidents of that
 " kind, he was shut up, and I saw him no more. His inquietude
 " lasted above a year, and he died from vexation; he was become
 " as dry as a bit of wood, as I am told; for I would not see him,
 " and his death was concealed from me more than two months after
 " the event. Were I to recount all the friendly incidents between
 " me and poor *Jacquot*, I should not, in four days, have done writ-
 " ing: he died in the third year of the reign of friendship, aged
 " seven years and two months."

gated plumage, the former more anciently domesticated than the latter. The freckled Geese, according to Varro, were not so prolific as the white ones *, which the farmer was advised by them to keep, as being also the largest †. Belon agrees entirely with the ancient writers on rural œconomy: but Gesner, who was almost his contemporary, asserts, that in Germany the gray sort are, for good reasons, preferred, being hardier and not less prolific; and Aldrovandus confirms the remark for Italy. It would seem as if the most ancient breed were emasculated by long domestication; and indeed the gray or variegated Geese are now inferior neither in size, nor in fecundity, to the white ones.

Aristotle, speaking of two breeds or species of Geese, a greater and a lesser, which are gregarious, seems by the latter to mean the wild Goose ‡. And Pliny treats particularly of this under its name *Anser ferus*. In fact, the Geese form two great tribes; of which the one, long since domesticated, is attached to our dwellings, and multiplies and varies in our hands; the other, much more numerous, has escaped from us, and remains wild and savage: for the whole difference results from the slavery of man on the one hand, and from the liberty of nature on the

* De Re Rusticâ, lib. viii. 13.

† Aldrovandus.

‡ Lib. viii. 15.

gated

other.

other *. The wild Goose is lean, and slenderer than the tame one: and the same may be observed of several breeds, according as they approach the primitive stem, as between the common and the stock pigeons. The wild Goose has also its back brownish-gray, its belly whitish, and all its body clouded with rusty-white, and the tip of each feather fringed with the same. In the domestic Goose, this rusty colour has varied, has assumed shades of brown or of white, has even disappeared entirely in the white fort †. Some have a tuft on the head. But these changes are inconsiderable, if compared with those which the hen, the pigeon, and many other species, have undergone in the domestic state. The Goose and the other water fowls which we have tamed, are much less removed from the wild state, and much less subdued or enslaved, than the gallinaceous, which seem to be the native citizens of our court-yard. In countries where multitudes of Geese are raised, the whole attention needed, during the summer months, consists in calling them and conducting them to the farm, where they have convenient and undisturbed retreats for nestling and educating their young; and these advantages, together with the asylum and food afforded them in winter, attach them to the abode, and restrain them from deserting. The rest of their time is

* Belon,

† Ray.

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spent beside the brooks and pools, where they play and rest on the banks. In a mode of life so nearly approaching to the liberty of nature, they resume almost all its advantages, strength of constitution, thickness and elegance of plumage, vigour and extent of flight *. In some regions even, where man, less civilized, that is less tyrannical, allows the animals still to enjoy freedom, there are Geese really wild the whole summer, which become domestic in the winter. We have learnt this fact from Dr. Sanchez, and we shall here give the interesting account which he communicated.

“ I set out from Azof,” says that learned physician, “ in autumn 1736. Being sick, and “ afraid of falling into the hands of the Cuban Tartars, I resolved to walk, following “ the course of the Don, and to sleep every “ night in the villages of the Cossacs, who “ are subject to the Russian dominion. In “ the first evenings of my journey, I remarked “ a great number of Geese in the air, which “ alighted and dispersed through the hamlets. “ The third day especially, I saw such a multitude at sun-set, that I enquired of the “ Cossacs, among whom I lodged that night, “ whether they were tame Geese; and if they “ came from a distance, as their lofty flight “ seemed to indicate. Surprized at my igno-

* Scaliger.

“ rance,

" rance, they replied that these birds came
 " from the remote northern lakes; and that
 " every year, on the breaking up of the ice,
 " in the months of March and April, six or
 " seven pairs of Geese leave each hut of the
 " village, which all take flight in a body, and
 " return not till the beginning of winter, as it
 " is reckoned in Russia, that is, at the first
 " snow; that these flocks arrive then, increased
 " sometimes an hundred-fold, and dividing
 " themselves, each little party seeks, with its
 " new progeny, the houses where they lived
 " the preceding winter. I had constantly that
 " spectacle every evening, for three weeks:
 " the air was filled with infinite multitudes
 " of Geese, which dispersed in bands: the girls
 " and women, at the doors of their huts, look-
 " ing at the flight, were calling out, ' There go
 " my Geese,' ' There go the Geese of such a
 " one: ' and each of the bands alighted in the
 " court where they had spent the preceding
 " winter *. I continued to see these birds
 " till I reached Nova - Pauluska, where the
 " winter was already intense."

It is probably from some such relations that
 the wild Geese which visit us in winter are

* The inhabitants make a slaughter among these Geese while
 their feathers are in down; they cut them in two and dry them;
 the down, famous for its goodness, is the subject of a great trade;
 the dry flesh is carried to the Ukraine, where the Cossacs barter it
 for spirituous liquors and some clothes. *Extract from the same nar-
 ration of Dr. Sanchez.*

supposed

supposed to be domestic in other countries. But this notion is, as we learn from Belon, devoid of foundation; for the wild Geese are of all birds, perhaps, the most completely savage; and besides, winter, the season of their arrival, is the very time they should be tame.

In France, the wild Geese pass in October or the first days of November*. Winter, which then begins its reign in the north, determines their migration: and, what is remarkable, the domestic Geese, at this same time, shew by their inquietude, their frequent and long flights, a similar desire to journey†, the evident remains of original instinct.

The

* It is in the month of November, M. Hebert writes me, that the first wild Geese are seen in Brie, and they continue to pass in that province till the hard frosts set in, so that their passage lasts nearly two months. The troops of these Geese are from ten or twelve to twenty or thirty, and never more than fifty: they alight in the plains sown with corn, and do so much injury that attentive husbandmen set children to watch their fields, and to frighten away the Geese by their shouts. It is in wet weather that they occasion the most havoc, because they tear up the wheat as they pasture on it; whereas in frost they only crop it, and leave the rest of the plant rooted in the soil.

† My neighbour at Mirande keeps a flock of Geese, which he every year reduces to fifteen, by selling a part of the old ones, and preserving a part of the young. This is the third year that I have remarked that during the month of October these birds betray a sort of restlessness, which I look upon as the remnant of their disposition to migrate. Every day, about four o'clock in the afternoon, these Geese take wing, pass over my gardens, and make a circuit round the plain in their flight, and return not to their roost till night: they call each other by a cry, which I distinctly recognized to be that which the wild Geese repeat in their passage, to collect and unite their numbers. The month of October has been so mild
this

The flight of the wild Geese is always very elevated*; their motion is smooth, accompanied with no noise or rustling, and the play of the wings, in striking the air, seems never to exceed one or two inches. The regularity and conduct with which they are marshalled, implies a sort of intelligence superior to that of other birds, which migrate in confused and disorderly flocks. The arrangement observed by the Geese seems dictated by a geometrical instinct: it is at once calculated to preserve the ranks free and entire,

this year, that the grass has shot up in the pasture-grounds; independently of this abundance of food, the proprietor of this flock gives them grain every evening this season, lest he should lose a few of them. Last year one strayed away, and was more than two months after found at three leagues distance. After the end of October, or the first days of November, these Geese resume their tranquillity. —I conclude from this observation, that the most ancient domestication (since that of the Geese in this country, where there are no wild ones, must have taken place in remotest antiquity) never entirely effaces this character imprinted by nature, this innate desire to migrate. The tame Goose, degraded and incumbered, attempts a passage, exercises itself every day; and, though abundantly provided and wanting for nothing, I could warrant, that if wild ones passed at this season, they would always lead off some, and that nothing but example and a little courage are needed to make them desert: I doubt not, that if the same observations were made in the provinces where many Geese are fed, we should find that some are lost every year, and this in the month of October. I know not, however, if all the Geese reared in court-yards shew these marks of inquietude; but it must be considered that these are almost confined within walls, and never pasture or enjoy the view of the horizon; they are slaves which have lost every idea of their ancient liberty. *Observation communicated by M. Hebert.*

* “It is only in foggy weather that the wild Geese fly so near the ground that they can be shot.” *Idem.*

to

to break the resistance of the air, and to lessen the exertion and fatigue of the squadron. They form two oblique lines, like the letter V; or, if their number be small, they form only one line: generally they amount to forty or fifty, and each keeps its rank with admirable exactness. The chief, who occupies the point of the angle, and first cleaves the air, retires, when he is fatigued, to the rear; and the rest, by turns, assume the station of the van. Pliny describes the wonderful order and harmony that prevail in these flights*; and remarks that, unlike the cranes and the storks, which journey in the obscurity of the night, the Geese are seen pursuing their route in broad day.

Several stations have been noticed where the larger flocks divide, and disperse into different countries. The ancients mentioned Mount Taurus as the rendezvous of such as spread through Asia Minor†; and also Mount Stella, now called Cossunossi (in Turkish *Fields of Geese*), whither prodigious flocks of these birds repair in the fall, and thence scatter through the whole of Eu-

* *Liburnicarum more rostrato impetu feruntur, facilius ita findentes aëra, quam si recta impellerent, a tergo sensim dilatante se cuneo, porrigitur agmen largèque impellenti præbetur auræ. Colla imponunt præcedentibus; fessos duces ad terga recipiunt. Lib. x. 23.*

† Oppian says, that in passing Mount Taurus, the Geese take the precaution to stop their mouth with a pebble, that their natural disposition to gabble may not betray them to the eagles; and the good Plutarch repeats the tale.

rope*. Several of these small bodies, or secondary flocks, unite again, and form larger squadrons, amounting to four or five hundred; which we sometimes see alight in our fields, where they are very destructive †, pasturing on the green corn, which they scrape from under the snow. Fortunately, the Geese are very unsteady and roving, remain a short while in one place, and seldom return to the same district. They spend the whole day on the ground, among the cultivated fields or meadows; but retire every evening to the rivers or large pools. There they pass the whole night, but arrive not till sun-set, and some after twilight: each party is received by loud acclamations, to which it replies; so that, at eight or nine o'clock, and the darkest nights, they make such noisy and multiplied clamours, that we should suppose them to be assembled by thousands.

The wild Geese might, at this season, be said to be birds of the plain rather than birds of the water; since they never resort to the streams and pools but at night. Their habits are the reverse of those of the ducks, which leave the water at that time, and disperse to feed in the meadows, and do not return before the Geese repair to their diurnal haunts. On their arrival

* Rzaczynski.

† Aldrovandus mentions Holland in particular as suffering by the visits of wild Geese.

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in the spring, the wild Geese scarce stop with us, and very few are then seen in the air: it is probable that they depart and return by different routes.

As the wild Geese so frequently shift their place, and as they have an acute ear, and are mistrustful and circumspect, they are difficult to catch *, and elude most kinds of snares. That which A'lex^d describes, is perhaps the surest and the best contrived. "When the fields," says he, "are kept dry by the frost, a proper place is chosen for spreading a long net, fastened and stretched with cords, so so that it may quickly drop: it is nearly like a lark's net, but extends over a longer space, which must be covered with dust. A few tame Geese are set beside it, to serve as calls. It is requisite that all these preparations be made in the evening, and that the net be not afterwards touched; for if in the morning the

* "It is almost impossible," says M. Hebert, "to shoot them on their arrival, because they fly too high, and begin not to descend till they are over water. I have tried," he adds, with little success, to surprize them at day-break; I passed the night in the fields; the boat was got ready in the evening, we stepped into it long before day, and we advanced, concealed by the dusk, a great way upon the water, and as far as the last of the reeds: however, we were too far from the flock to fire upon them; and these shy birds rose all of them, and to such a height, that in passing over our heads they were beyond the reach of our shot. All these Geese thus assembled had set off together, and were waiting full day, had they not been disturbed; then they separated and dispersed in divisions, and perhaps in the same order in which they had collected in the preceding evening."

“ Geese perceive the dew or rime brushed,
 “ they will grow suspicious. They come
 “ to the cackling of the calls, and after long
 “ circuits, and many windings in the air,
 “ they alight: the fowler, concealed in a ditch
 “ at fifty paces distance, pulls the cord, and
 “ takes the whole flock, or part of it, under his
 “ net.”

Our fowlers employ all their stratagems to surprize the wild Geese. If the ground be covered with snow, they throw a white shirt over their clothes. At other times, they disguise themselves with branches and leaves, so as to appear a walking bush. They even cover themselves with a cow's skin, and advance on all-four, holding their gun under them: and, with all these wiles, they often cannot approach the Geese, even during the night. It is said, that one always stands sentinel, with its neck extended and its head raised, and which, on the least symptom of danger, sounds alarm to the flock. But as they cannot suddenly mount, but run three or four paces clapping their wings, the fowler has time to fire on them.

The wild Geese do not remain with us the whole winter, unless the season is mild; for in severe winters, when the rivers and pools are frozen, they advance farther south, whence some return about the end of March, in their progress to the northern countries. They frequent, then, the hot and even the temperate climates in the

time of their passages only; for we are not informed whether they breed in France*. A few breed in England, as well as in Silesia and Bothnia †: a larger number breed in some cantons of Great Poland and Lithuania ‡: but the bulk of the species settle not till they have advanced farther north ||; nor do they stop on the coasts of Iceland §, or on the extensive shores of Norway ¶. They migrate in immense flocks as far as Spitzbergen **, Greenland ††, and the tracts adjoining to Hudson's Bay ‡‡, where their fat and their dung

* Belon.

† Schwenckfeld.

‡ *Idem.*

|| Aldrovandus.

§ The wild Geese visit Iceland only in the spring. It is uncertain whether these birds breed there, the more so as they are remarked not to halt, but to continue their flight towards the north: they are, properly speaking, only birds of passage. *Horreboov.*

¶ There are only two kinds of wild Geese in Norway; the gray ones pass in summer into the district of Nortland. The Norwegians believe that in winter they go to France. . . We know not where these Geese breed; however, some have been observed to multiply on the coast of Riefilde, in Norway. *Pontoppidan.*

** There is a great gulph (north-west of the island Baëren, between Spitzbergen and Greenland), and in the middle of it an island filled with wild Geese and their nests. Heemskerke and Barentz doubt not but these Geese are the same that are seen to come every year in great numbers into the United Provinces, particularly at Wiefingen, in the Zuyder-sea, in North Holland and Friesland, though hitherto it was unknown where they bred. *Recueil des Voyages de la Compagnie des Indes; Amsterdam, 1702, tom. i. p. 35.*

†† The wild gray Geese arrive at the opening of the summer in Greenland, to lay their eggs and rear their young. It is probable that they come from the nearest coasts of America; they return there to winter. *Crantz.*

‡‡ In the end of April, plenty of ducks and Geese arrive at Hud-

dung * prove resources to the miserable inhabitants of these frozen countries. There are also innumerable flocks on the lakes and rivers of Lapland †, as well as on the plains of Mangasea, along the Jenisea ‡; and in many other parts of Siberia, as far as Kamtschatka, whither they arrive in the month of May, and whence they depart in November, after having hatched. Steller saw them pass Bering's Island, flying in autumn towards the east, and in spring towards the west; and he thence infers that they come from America to Kamtschatka. Certain it is, the greatest part of these Geese, on the north-east of Asia, push southwards to Persia §, India §, and Japan, where their migrations are remarked as in Europe: we are assured even that in Japan they enjoy so much security, as to have forgotten their natural shyness ¶.

A fact

son's Bay. *Hist. Gen. des Voy.*—On Nelson River there are many Geese, ducks, and swans. *Ellis*.—There are also numbers of Geese on Rupert River. *Lade*.

* The northern people season their meat with Goose-fat instead of butter. *Olaus Magnus*.—Dried Goose-dung serves the Esquimaux as a wick for their lamps instead of cotton; it is a poor shift, but much better than none at all. *Ellis*.

† Regnard.

‡ Gmelin.

§ In Persia there are Geese, ducks, plovers, cranes, herons, divers, and woodcocks, every where; but most plentiful in the northern provinces. *Chardin*.

§ There are Geese, ducks, teals, herons, &c. in the kingdom of Guzaratte, in the East Indies. *Mandeflo*.—They are found also in Tonquin. *Dampier*.

¶ In Japan there are two sorts of Geese, which never intermix; the one white as snow, with the tips of the wings very black; the other

other

A fact which seems to corroborate the opinion that the Geese pass from America into Asia, is, that the same species which is seen in Europe and in Asia, occurs likewise in Louisiana*, in Canada †, in New Spain ‡, and on the west coast of North America. We know not whether the same species be found equally in the whole extent of South America. We learn, however, that the tame Goose, introduced from Europe into Brazil, is reckoned to have improved the delicacy and flavour of its flesh ||: on the contrary, it has degenerated in St. Domingo, where the Chevalier Lefebvre Deshayes has made several observations on the dispositions of these birds in the domestic state; and particularly on the tokens of joy which the ganders shew at the

other ash-gray; they are all so common and so familiar, as easily to permit a person to approach them. Though they are very pernicious in the fields, it is prohibited to kill them, under pain of death, in order to secure the privilege to those who purchase the right. The peasants are obliged to surround their fields with nets, to defend them from the ravages. *Kæmpfer*.

* Dupratz.

† The Geese, and all the large river birds, are every where abundant in Canada, except near habitations, which they are never seen to approach. *Hist. Gen. des Voy. tom. xv. p. 227.*—Among the Hurons there are wild Geese, which they call *abonque*. *Theodat*.

‡ *Tlacacatl* is a mountain Goose, like the tame, and either the same with our wild Goose, or akin to it. *Fernandez*.

|| It is said to be remarked that the ducks and Geese carried from Europe to Brazil, have there acquired a finer taste; on the contrary, the hens, which have there grown larger and stouter, have lost a part of their flavour. *Hist. Gen. des Voy. tom. xiv. p. 305.*

birth of the young *. He informs us also, that at St. Domingo is seen a migratory Goose, which, as in Europe, is something smaller than the tame kind. And hence it would appear, that these birds of passage advance far into the southern regions of the new world, as in those of the old continent, where they have penetrated under the torrid zone †, and seem even to have traversed its whole extent; for they are found in Senegal ‡, in Congo ||, in the vicinity of the Cape of Good

* Though the Goose bears here to be robbed thrice a year of its down, the species is however less valuable in a climate, where health forbids, in spite of effeminacy, to repose on the down, and where fresh straw is the only bed on which sleep can alight: nor is the flesh of the Goose so good at St. Domingo as in France; it is never plump, it is stringy, and that of the Indian Goose is in every respect preferable. *Observation communicated by the Chevalier Lefebvre Deshayes.*

Naturalists have not mentioned, I think, the singular expressions of joy which the gander gives his young the first times he sees them eat. This animal shews its satisfaction by raising his head with a dignified air, and stamping with his feet, so that one should imagine that he dances. These signs of contentment are not equivocal, since they have place only in this circumstance, and are repeated almost each time that the goslings are fed in their tender age. The father neglects his own subsistence, to give vent to the joy of his heart: this dance is sometimes of long duration, and if any incident occasions an interruption, as when he chafes the poultry to a distance from his young, he resumes it with new ardour. *Idem.*

† All climates, M. Baillon writes me, suit the Goose and the duck, alike migratory and passing from the coldest countries into those situated between the tropics. I have seen many arrive in the island of St. Domingo on the approach of the rainy season, and they seem to suffer no sensible alteration in climates so opposite.

‡ On the coast of Senegal, the Geese and teals are well-flavoured. *Le Maire.*

|| Mandeflo.

Hope,

Hope *, and perhaps in the lands of the southern continent. In fact, we conceive the Geese which navigators have met with in the Magellanic lands, at Tierra del Fuego †, in New Holland ‡, &c. to be nearly a-kin to our species of Geese, since they have received no other name. Yet, besides the common species, there exist in those countries other species; which we now proceed to describe.

* The country (at the bay of Saldana) is filled with ostriches, herons, Geese, &c. *Gemelli Carreri*.—The size of the water Geese, which are found at the Cape of Good Hope, is the same with that of the tame Geese known in Europe; and with respect to colour, there is no other difference between them, except that the water Geese have on the back a brown stripe mixed with green. All these different kinds of Geese are excellent wholesome food. *Kolben*.

† Geese are seen on the edge of the lagoons (in the bay of St. Julian) in the *Terra Magellanica*. *Quiroga*.—Wallis found Geese at Cape Forward, in the Straits of Magellan;—also in the bay of Cape Holland.—Cook found Geese and ducks at Christmas Sound, in *Tierra del Fuego*, and called an island there, *Goose Island*, and a cove, *Goose Cove*.—Geese, ducks, teals, and other birds, occur at Port Egmont, latitude 51° S. in such numbers, that our people were tired of eating them: it was usual to see a canoe bring sixty or seventy fine Geese without firing a shot; they were killed with stones. *Byron*.

‡ The water-fowl (at New South Holland) are the wild Geese, and the whistler ducks which perch. *Cook*.—Captain Cook left some pairs of tame Geese in New Holland, in hopes that they would multiply.

[A] Specific character of the wild Goose, *Anas Anser*: "Its bill "is semi-cylindrical; its body cinereous above, and paler below; its "neck striped." Great flocks of Geese are kept in the fens of Lincolnshire, which are plucked about the neck, breast, and back, once or twice a year. The feathers form a considerable branch of trade; those from Somersetshire are esteemed the best, and those from Ireland are reckoned the worst.—The following is an extract

from Mr. Pennant's first tour in Scotland: "The fens near Revesby
" Abby (in Lincolnshire) eight miles beyond Horncastle, are of vast
" extent; but serve for little other purpose than the rearing great
" numbers of Geese, which are the wealth of the fenmen. During
" the breeding season, these birds are lodged in the same houses
" with the inhabitants, and even in their very bed-chambers: in
" every apartment are three rows of coarse wicker pens placed one
" above another; each bird has its separate lodge divided from the
" other, which it keeps possession of during the time of sitting. A
" person, called a *Goscard*, (goose-herd) attends the flock, and
" twice a-day drives the whole to water; then brings them back
" to their habitations, helping those that live in the upper stories
" to their nests, without ever misplacing a single bird.

" The Geese are plucked five times a-year; the first plucking
" is at Lady-day, for feathers and quills; and the same is renewed
" for feathers only, four times between that and Michaelmas. The
" old Geese submit quietly to the operation, but the young ones
" are very noisy and unruly. I once saw this performed, and ob-
" served that the goslings of six weeks old were not spared; for
" their tails were plucked, as I was told, to habituate them early to
" what they were to come to. If the season proves cold, numbers
" of Geese die by this barbarous custom.

" Vast numbers are drove annually to London, to supply the
" markets; among them, all the superannuated geese and ganders
" (called here *Cagmags*) which serve to fatigue the jaws of the
" good citizens, who are so unfortunate as to meet with them."

The MAGELLANIC GOOSE.

L'OIE DES TERRES MAGELLANIQUES.

Buff.

SECOND SPECIES.

Anas Magellanica. Gmel.

THIS large and beautiful Goose, which seems peculiar to the country contiguous to the Straits of Magellan, has the lower half of its neck, its breast, and the top of its back, richly enamelled with black festoons on a rufous ground: the plumage of the belly is worked with the same festoons on a whitish ground: the head and the top of the neck are of a purple red. There is a large white spot on the wing: and the blackish colour of the mantle is softened by a purple gloss.

It would seem that these beautiful Geese are what Commodore Byron styles the *painted Geese**, which are found at *Sandy Point*, in the Straits of Magellan. Perhaps this species is the same with that which Captain Cook calls *a new species of Goose*, and which he met with on the eastern coasts of the Straits of Magellan, and of Tierra del Fuego, which are surrounded by immense floating beds of samphire.

* *Anas Picta.* Gmel.

The GOOSE of the MALOUINE, or FALKLAND ISLANDS.

THIRD SPECIES.

Anas Leucoptera. Gmel.

The White-winged Antarctic Goose. Brown.

The Sea Goose.

The Bustard Goose. Lath.

“ OF several species of Geese,” says M. de Bougainville, “ on which we partly subsisted in the Malouine islands, the first only grazes. It is improperly called the *bustard*. Its tall legs are requisite for wading through the large herbs, and its long neck is useful for descrying danger. Its pace is nimble, as is its flight; and it has not the disagreeable cackle of its family. The plumage of the male is white, with a mixture of cinereous on the back and the wings: the female is fulvous, and her wings decorated with changing colours; she usually lays six eggs. Their flesh, which is salubrious, nutritive, and well tasted, became our principal food, and was seldom out of our reach. Besides those bred on the island, the winds in autumn bring large flocks, no doubt from some desert country,

“country, for sportsmen easily distinguish these
 “new-comers by their indifference at the sight
 “of men. Two or three other kinds of Geese,
 “which we found in these same islands, were
 “not so much sought after, because they con-
 “tract an oily taste by feeding on fish *.”

We term this species the *Goose of the Malouine islands*, because in these islands it was first found by our French navigators; for the same Geese seem to be met with in Christmas Sound, upon Tierra del Fuego, in Shag Island, and on other islands near Staten Land: at least Captain Cook seems, on this head, to refer to Bougainville's description, when he says, “The
 “Geese seem to be very well described under the name of *bustards*. They are much
 “smaller than our English tame geese, but eat
 “as well as any I ever tasted. They have short
 “black bills, and yellow legs. The gander is
 “all white; the female is spotted black and
 “white, or gray, with a large white spot on
 “each wing.” And a few pages before he gives a fuller description, in the following terms: “These birds appeared remarkable for the difference of colour between the male and the

* “The form of the latter,” adds M. de Bougainville, “is less
 “elegant than that of the first species; there is one which rises
 “with difficulty above the water; this is noisy: the colours of
 “their plumage are seldom other than white, black, fulvous, and
 “cinereous. All these species, as well as the swans, have under
 “their feathers a very thick white or gray down.”

“female.

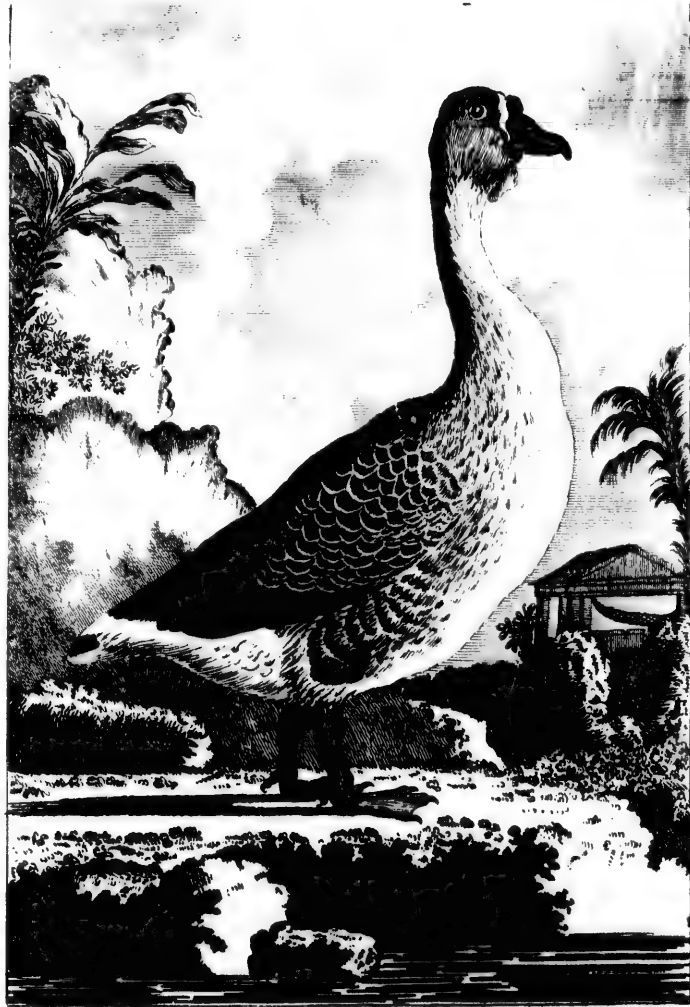
“female. The male was something less than
“an ordinary tame goose, and perfectly white :
“the female, on the contrary, was black, with
“white bars across, the head gray ; some feathers
“green, and others white. This difference seems
“to be fortunate ; for the female being obliged
“to lead her young, the dark colour of her
“plumage conceals her better from the falcons
“and other birds of prey.” These three descriptions seem to belong to the same species, and differ not essentially from each other. These Geese afforded Captain Cook’s crew as acceptable repasts as those at the Falkland islands did the French *.

* “As soon as we got under the island, we found plenty of
“hags in the cliffs ; but without staying to spend our time and shot
“upon these, we proceeded on, and presently found sport enough :
“for, on the south side of the island, were abundance of geese. It
“happened to be the moulting season ; and most of them were on
“shore for that purpose, and could not fly. There being a great
“surf, we found great difficulty in landing, and very bad climbing
“over the rocks when we were landed ; so that hundreds of the Geese
“escaped us, some into the sea, and others up into the island. We,
“however, by one means or other, got sixty-two, with which we
“returned on board, all heartily tired ; but the acquisition we had
“made overbalanced every other consideration, and we sat down
“with a good appetite to supper on part of what the preceding day
“had produced.” *Cook’s second Voyage*, vol. ii. p. 182.

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THE CHINESE GOOSE

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The GUINEA GOOSE.

FOURTH SPECIES.

Anas Cygnoides. Linn. and Gmel.

Anser Guineensis. Briss.

Anser Hispanicus, sine Cygnoides. Marfigl. Danub.

The Spanish Goose. Albin.

The Swan Goose. Ray and Will.

The Chinese Goose. Penn. and Lath.

THE appellation of *Swan-Goose*, given by Willughby to this large and beautiful bird, is very apt; but the Canada Goose, which is at least as beautiful, has an equal right to the name; and besides, all compounded epithets ought to be banished from natural history. The Guinea Goose exceeds all other geese in stature; its plumage is a brown gray on the back, and light gray on the fore side of the body, the whole equally clouded with rusty gray, and with a brown cast on the head and above the neck: it resembles therefore the wild goose in its colours; but its magnitude, and the prominent tubercle at the root of its bill, mark a small affinity to the swan; yet it differs from both by its inflated throat, which hangs down like a pouch or little dewlap: a very evident character, which has procured to these birds the denomination *Jabotieres*.

tieres *. Africa, and perhaps the other southern countries of the old continent, seem to be their native abodes ; and though Linnæus has termed them *Siberian Geese*, they are not indigenous in Siberia, but have been carried thither and multiplied in a state of domestication, as in Sweden and Germany. Frisch relates that, having repeatedly shown to Russians Geese of this kind, which were reared in his court-yard, they all, without hesitation, called them *Guinea Geese*, and not *Russian or Siberian Geese*. Yet has the inaccurate denomination of Linnæus misled Brisson, who describes this Goose under its true name of *Guinea Goose*, and again, a second time, under that of *Muscovy Goose*, without perceiving that his two descriptions refer precisely to the same bird †.

Not only does this Goose, though a native of the hot countries, multiply when domesticated

* From *jabot*, the craw.

† *Anas Cygnoides*, variety. Linn. and Gmel.

Anser Muscoviticus. Brisson.

Anser Russicus. Klein.

The Crop Goose. Kolben.

The Muscovy Gander. Albin. and Lath.

"It is somewhat larger," says Brisson, "than the tame Goose : . . . the head and the top of the neck are brown, deeper on the upper side than on the under ; . . . on the origin of the bill there rises a round and fleshy tubercle ; . . . under the throat also there hangs "a sort of fleshy membrane." Add, that Klein regards this Goose of Muscovy or Russia as a variety of the Siberian, which, we have seen, is the same with the Guinea Goose : "I saw," says he, "a variety of the Siberian Goose, its throat larger, its bill and legs black, with a black depressed tubercle."

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in the coldest climates ; it also contracts an affinity with the common species, and the hybrids which are thus bred take the red bill and legs of our Goose, but retain of their foreign parent the head, the neck, and the strong, hollow, and yet loud voice. The clangor of these large Geese is still more noisy than that of the ordinary kind, and they have many characters in common : the same vigilance seems natural to them. " Nothing," says Frisch, " can stir in the house during the night, but the Guinea Geese will sound an alarm : and in the day-time they give the same screams if any person or animal enter the court ; and often will pursue, pecking the legs." The bill, according to the remark of this naturalist, is armed at the edges with small indentings, and the tongue is beset with sharp *papillæ* ; the bill is black, and the tubercle which rises upon it is vermillion. This bird carries its head high as it walks ; and its fine carriage and its great bulk give it a noble air *. According to Frisch, the skin of the little dewlap or pouch under the throat is neither soft nor flexible, but firm and hard. This account, however, scarce agrees with the use which, Kolben tells us, the sailors and soldiers at the Cape make of it †. I received a head and neck of

* Ray.

† The wild geese at the Cape have been called *crop geese* (*ois jabotieres*.) The soldiers, and the common people of the colonies, use these crops for tobacco-pouches ; they will hold about two pounds. *Kolben*.

one of these Geese, and, at the root of the lower mandible, this pouch or dewlap was visible: but as these parts were half burnt, we cannot describe them exactly. I learn however from this packet, which was sent from Dijon, that the Guinea Geese occur in France, as well as in Germany, Sweden, and Siberia.

[A] Specific character of the Guinea Goose, *Anas Cygnoides*:
 " Its bill is semi-cylindrical; its cere bunched; its eye-lids
 " swelled."

The ARMED GOOSE.

FIFTH SPECIES.

Anas Gambensis. Linn. and Gmel.
Anser Gambensis. Briss. Will. and Ray.
Anser Chilenfis. Klein.
The Spur-winged Goose. Lath.

THIS species is the only one, not only of the Geese, but of all the palmiped birds, which has spurs on the wings, like the kamichi, the jacanas, and some of the plovers and lapwings: a singular character, which nature has seldom repeated. With respect to size, this Goose may be compared to the Muscovy duck; its legs are tall and red; its bill is of the same colour, and has, on the front, a little caruncle; the tail and
 the

the great quills of the wing are black; their great coverts are green, the smaller white, and crossed by a narrow black ribband: the mantle is rufous, with reflections of dull purple; the space round the eyes is of the same colour, which tinges also, though faintly, the head and the neck; the fore side of the body is finely fringed with small gray zig-zags, on a yellowish white ground.

This Goose is stiled the *Egyptian* in our *Pl. Enl.* Brisson has denominated it the *Gambian Goose*. It is indeed a native of Africa, and is found particularly about Senegal*.

* The wild geese are at Senegal of a colour very different from that of those in Europe; their wings are armed with a hard, spiny, and pointed substance, two inches and a half in length. *Hist. Gen. des Voy. tom. viii. p. 305.*—*N. B.* This length seems to be exaggerated.—Another mentions that this Goose is called *bitt* at Senegal.

[A] Specific character of the *Anas Gambensis*: "Its bill is semi-cylindrical; its cere bunchy; its shoulders spurred."

The BLACK-BACKED GOOSE.

L'OIE BRONZÉE. *Buff.*

SIXTH SPECIES.

Anser Melanotos. Gmel.

THIS also is a large and beautiful species, which is remarkable by a great fleshy excrescence of a comb-shape above the bill, and by the reflections of gold and bronze, glistening like burnished steel, with which its mantle shines on a black ground: the head, and the upper half of the neck, are speckled with black amidst the white, by means of little reflected feathers, that seem buckled on the back of the neck: all the fore side of the body is white, tinged with gray on the flanks. This Goose appears to have a thinner body and a slenderer neck than the common wild goose, though it is at least as large. It was sent to us from the coast of Coromandel: and perhaps the crested goose of Madagascar, mentioned by the navigators Rennefort and Flaccourt, under the name of *rassangue*, is only the same bird; which we recognize also with all its characters in the *ipecati-apoa* of the
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Brazilians, of which Marcgrave has given a figure and description. Thus this aquatic species is one of those which nature has distributed in both continents.

The EGYPTIAN GOOSE.

SEVENTH SPECIES.

Anas Ægyptiaca. Linn. and Gmel.

Anser Ægyptius. Briff.

Anser Hispanicus parvus. Ray.

The Ganfer. Albin.

THIS bird is probably what Granger, in his travels to Egypt, calls the *Nile Goose* *. It is not so large as our wild goose; its plumage is richly enamelled, and agreeably variegated; a broad spot of bright rufous is conspicuous on its breast; and all the fore side of the body is decorated, on a light gray ground, with a very delicate hatching of small zig-zags, cinereous, and tinged with rusty; the side of the back is worked in the same way, but with closer zig-zags, which produce a deeper rusty-gray; the throat, the cheeks, and the upper side of the head, are

* The birds of Egypt are the ibis, the Nile Goose, the horse-man, the avoet, the heron, &c. Granger.

white; the rest of the neck, and the space round the eyes, are fine rufous or bay colour, which also tinges the quills of the wing next the body; the other quills are black; the great coverts are covered with a reflection of bronze-green on a black ground, and the smaller and middle ones are white; a little black ribband intercepts the extremity of the latter.

This Egyptian Goose journies or strays in its excursions, sometimes to a vast distance from its native country: that represented in our *Planches Enluminees* was killed on a pool near Senlis; and from the appellation given by Ray to this Goose, it must also be sometimes found in Spain *.

* *Anser Hispanicus parvus.*

[A] Specific character of the *Anas Aegyptiaca*: "Its bill is somewhat cylindrical; its body waved; its top white; a bright white spangle, with a black bar, on its wing."

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The ESQUIMAUX GOOSE.

E I G H T H S P E C I E S.

Anas Cærulescens. Linn. and Gmel.

Anser Sylvestris Freti Hudsonis. Briss.

The Blue-winged Goose. Edw. Penn. and Lath.

BESIDES the species of wild geese which migrate in such numbers during the summer to the north of our continent, it appears that there are also some kinds peculiar to the northern parts of the new world. The present frequents Hudson's Bay and the country of the Esquimaux: it is somewhat smaller than the common wild goose; its bill and legs are red; the rump, and the upper side of the wings, are pale blue; the tail is of the same colour, but duller; the belly is white, clouded with brown; the great quills of the wing, and those next the back, are blackish; the upper side of the back is brown, and also the lower part of the neck, of which the under side is speckled with brown on a white ground; the top of the head is of a burnt rufous.

[A] Specific character of the *Anas Cærulescens*: "It is brown, " below white; the coverts of its wings, and the hind part of its " back, are white."

The LAUGHING GOOSE.

NINTH SPECIES.

Anas Albifrons. Gmel.

Anser Septentrionalis Sylvestris. Briss.

Anas Erythropus. Muller, Kramer, and Browlce.

The White-fronted Goose. Penn. and Lath.

EDWARDS gives the name of *Laughing Goose* to this species, which, like the preceding, occurs in the north of America. It is as large as our wild goose; its bill and legs are red; its front is white; all the plumage above the body is brown, more or less intense, and below white sprinkled with a few blackish spots. The one described by Edwards was sent to him from Hudson's Bay; but he says, that he has seen such birds in London during hard winters. Linnæus describes a goose found in Helsingia, which seems to be the same: whence it follows, that if this species be not entirely common to both continents, it passes, at least in certain circumstances, from the one to the other.

[A] Specific character of the *Anas Albifrons*: "It is brown; " below white spotted with black; its front and rump white; its " bill and legs flame-coloured."

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The CRAVAT GOOSE.

TENTH SPECIES.

Anas Canadensis. Linn. and Gmel.

Anser Canadensis Sylvestris. Briss. and Will.

The Canada Goose. Catesby, Edw. Penn. and Lath.

A WHITE cravat, wrapped about its black neck, distinguishes sufficiently this Goose, which is also one of those peculiar to the northern parts of the new world, where at least it derives its origin. It is something larger than our domestic Goose, and has its neck and its body rather longer and more slender; its head and neck are black or blackish, which dark colour sets off the white cravat that covers the throat. The prevailing cast of its plumage is dull brown, and sometimes gray. This Goose is known in France by the name of the *Canada Goose*: it has even multiplied under domestication, and occurs in several of our provinces. Within these few years, many hundreds inhabited the great canal at Versailles, where they lived familiarly with the swans; they were oftener on the grassy margins than in the water. There is at present a great number of them on the magnificent pools that decorate the charm-

ing gardens of Chantilly. They have also multiplied in Germany and in England. This beautiful species may be viewed as forming the intermediate gradation between the swan and the Goose.

These Cravated Geese migrate southwards in America, for they appear during winter in Carolina; and Edwards relates, that in the spring they pass in flocks to Canada, and thence return to Hudson's Bay, and the other more northern parts of America.

[A] Specific character of the *Anas Canadensis*: "It is cine-reous; its head and neck are black; its cheeks and throat white." It breeds in Hudson's Bay, and lays six or seven eggs.—I must beg leave to subjoin the following extract from Mr. Pennant, to whose ingenious and accurate works I have so often been indebted.

"The English of Hudson's Bay depend greatly on Geese, of these and other kinds, for their support; and, in favourable years, kill three or four thousand, which they salt and barrel. Their arrival is impatiently attended; it is the harbinger of the spring, and the month named by the Indians *the goose moon*. . . . They prefer islands to the continent, as further from the haunts of men. . . . The English send out their servants, as well as the Indians, to shoot these birds on their passage. It is in vain to pursue them; they therefore form a row of huts made of boughs, at musquet-shot distance from each other, and place them in a line across the vast marshes of the country. Each hovel, or as they are called, *stand*, is occupied by only a single person: these attend the flight of the birds, and on their approach mimic their cackle so well, that the Geese will answer, and wheel and come nearer the stand. The sportsman keeps motionless, and on his knees, with his gun cocked the whole time, and never fires till he has seen the eyes of the Geese. He fires as they are going from him, then picks up another gun that lies by him, and discharges that. The Geese which he has killed he sets up on sticks as if alive, to decoy others; he also makes artificial birds for the same purpose. In a good day (for they fly in very uncertain and unequal numbers)

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p. 110

BESIDES these ten species of Geese, we find mention made by travellers of some others, which belong perhaps to the preceding.

1. The Icelandic Goose, of which Anderfon speaks under the name of *Margee*: they are somewhat larger than a duck. In that island they appear in vast flocks.

2. The Goose, called *Helsinguer* by the same author; "which comes to settle on the east of the island, and is so fatigued on its arrival, that it may be knocked down with sticks *."

3. The Spitzbergen Goose, called *the red Goose* by the Dutch †.

4. The *Looke* of the Ostiaks, a small Goose described by De l'Isle, from one killed on the banks of the Oby. "These Geese," says he,

"bers) a single Indian will kill two hundred. Notwithstanding every species of Goose has a different call, yet the Indians are admirable in their imitation of every one.

"The vernal flight of the Geese lasts from April to the middle of May. Their first appearance coincides with the thawing of the swamps, when they are very lean. The autumnal, or the season of their return with their young, is from the middle of August to the middle of October. Those which are taken in the latter season, when the frosts usually begin, are preserved in their feathers, and left to be frozen for the fresh provisions of the winter stock. The feathers constitute an article of commerce, and are sent to England." *Arctic Zoology*, vol. ii. 545.

* Anderfon's Natural History of Iceland and Greenland.

† We saw (at Spitzbergen) a flock of *red Geese*; these geese have long feathers; there are numbers of them in Russia, Norway, and Jutland. *Recueil des Voyages du Nord*; Rouen, 1716, tom. ii. p. 110.

" have

"have their wings and their back of a deep
 "shining blue; their stomach is reddish, and
 "on the top of their head is a blue oval spot,
 "and a red spot on each side of the neck.
 "From the head to the stomach extends a sil-
 "very stripe as broad as a quill, which pro-
 "duces a fine effect."

5. In Kamtschatka are found, according to Kracheninikoff, five or six species of Geese, besides the common wild Goose, viz. *the Gumeniski, the Short-necked Goose, the Spotted Gray Goose, the White-necked Goose, the Little White Goose, and the Foreign Goose*. This traveller has mentioned no more than their names; and Steller says only that these Geese arrive in Kamtschatka in the month of May, and retire in October.

6. The *Mountain Goose* of the Cape of Good Hope, of which Kolben gives a short description, distinguishing it from the *water* or common Goose and the *Crop Goose* *.

We shall not here speak of the pretended *Black Geese of the Moluccas*, whose feet are said to resemble those of parrots †: for such incon-

* Anas Montana. Gmel.—The Cape furnishes three kinds of wild Geese; *the Mountain Geese, the Crop Geese, and the Water Geese*: Not but all of them are very fond of that element; yet they differ much both in colour and in size. The *Mountain Goose* is larger than the Goose reared in Europe; the feathers of its wings, and those on the crown of its head, are of a very beautiful and shining green: this bird retires ofteneft into the vallies, where it pastures on herbs and plants. Kolben.

† *Hist. Gen. des Voy. tom. viii. p. 377.*

gruities can be imagined only by people ignorant of natural history.

To complete the numerous family of the Geese, we have only to add the species of the *Brent*, the *Bernacle*, and the *Eider*.

The B R E N T.

LE CRAVANT. *Buff.**Anas Bernicla.* Linn. and Gmel.*Brenta.* Briss. and Klein.*Anas Torquata.* Aldrov. Johnst. and Will. •

THE name *Cravant* is, according to Gesner, no other than *Grau-ent*, which, in German, signifies *gray-duck*. In fact, the colour of this bird is brown-gray or blackish, and pretty uniform over its whole plumage; but its port and figure approach nearer to the goose than to the duck. It has the high head and all the other proportions of the goose, on a smaller model, and with a thinner body. Its bill is rather narrow, and pretty short; its head is small, and its neck long and slender: these two parts, and also the top of the breast, are of a blackish brown, except a very narrow white band, which forms a half-collar under the throat; a character which leads Belon to find a name relating to this bird in Aristophanes. All the quills of the wings and of the tail, and also the upper coverts of the latter, are likewise of a blackish

• In Italian *Ceson*.

brown;

brown; but the lateral feathers, and all those of the upper surface of the tail, are white. The plumage of the body is cinereous gray on the back, on the flanks, and above the wings; but it is dapple gray under the belly, where most of the feathers are edged with whitish; the iris of the eye is brownish yellow; the legs and the membranes which connect the toes, are blackish, and also the bill, in which large nostrils are perforated and exposed.

The Brent has long been confounded with the bernacle. Willughby owns, that he once supposed they were only the male and female *, but afterwards perceived distinctly, from many characters, that these birds really formed two different species. Belon styles the Brent (or *Cravant*) the *collared sea duck*; and, in another place, he calls the bernacle, the *cravant* †; and the people on the French coasts make the same mistake ‡. The great resemblance in the plu-

* Frisch says, that the Brent is called *baumgans*, or tree-goose, because it builds its nest in trees, which is altogether improbable: it is more likely that this name was borrowed from the bernacle, which was fabled to owe its birth to rotten wood.

† Aldrovandus is much more mistaken when he takes the bird described by Gesner, under the name of *pica marina*, for the Brent or collared goose: this sea-pie of Gesner is the guillemot; and this mistake of so learned a naturalist as Aldrovandus, shows that descriptions in natural history, if ever so little faulty or confused, are of small service in giving a clear idea of the object meant to be represented.

‡ "The Brent or nun-goose is very common on this coast (of Croisic) where great flocks are seen; the people call it *bernacle*, "and I believed it to be the same till I saw one." *Note communicated by M. de Querhoënt.*

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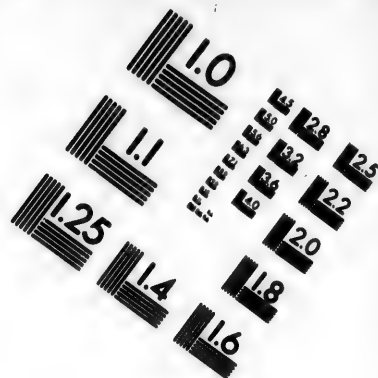
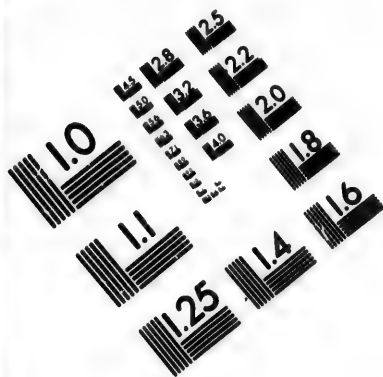
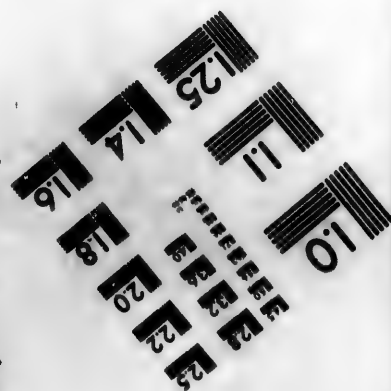
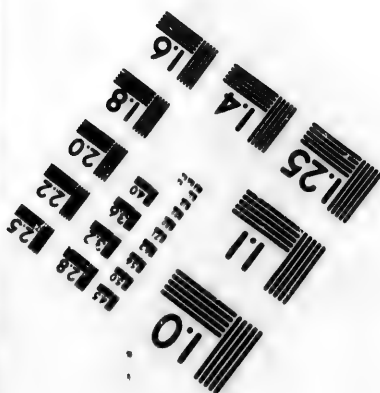
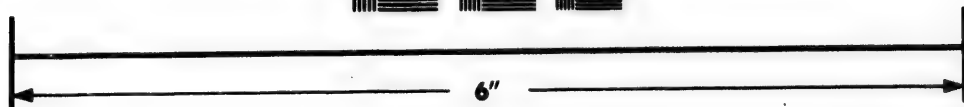
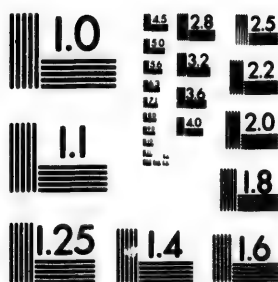


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mage and shape of the body, which obtains in these two birds, has given occasion to the confusion: yet the bernacle is jet black, while the Brent is only dark brown; and besides, the latter frequents the coasts of temperate countries only, while the bernacle appears only in the most northern countries. And that circumstance alone convinces us that they are really two distinct and separate species.

The cry of the Brent is a dull, hollow sound, which we have often heard, and which we may denote by *ouan, ouan*; it is a sort of hoarse bark, which the bird frequently utters*. It has also, when pursued or even approached, a hiss like that of the goose.

The Brent can live in the domestic state†. We have kept one several months. Its food was grain, bran, or soaked bread. It constantly showed a timid, shy disposition, and avoided all familiarity; and though shut up in a garden with sheldrakes, it always lived apart from them: it was even so cowardly, that a garganey, which had before lodged with it, made it run. It was observed to eat as much, perhaps even more, in the night than in the day. It was fond of bathing, and it shook its wings

* Note communicated by M. de Querhoënt.

† "A gentleman of this neighbourhood (at Croisic) has preserved one in his court-yard two years: the first spring it was very sick at the time of laying; it died the second, leaving one egg." *Idem.*

upon

upon coming out of the water. Yet fresh water is not its native element*; for all those which are seen on our coasts, arrive from the sea.—I shall here insert some observations on this bird, which were communicated to us by M. Baillon.

“ The Brents were hardly known on the
 “ coasts of Picardy before the winter of 1740.
 “ The north wind then brought a prodigious
 “ number of them; the sea was covered with
 “ them: all the marshes being frozen, they
 “ spread over the land, and committed great
 “ destruction among the tender corn, which was
 “ not sheltered by the snow; they devoured the
 “ shoots to the very roots. The country people,
 “ whose fields were exposed to this devastation,
 “ declared a general war against these
 “ birds. They approached the Brents very
 “ near the first days, and killed many with
 “ sticks and stones. But they seemed as it
 “ were to rise again; for new flocks continued
 “ to pour in from the sea, and to destroy what
 “ plants the frost had spared.”

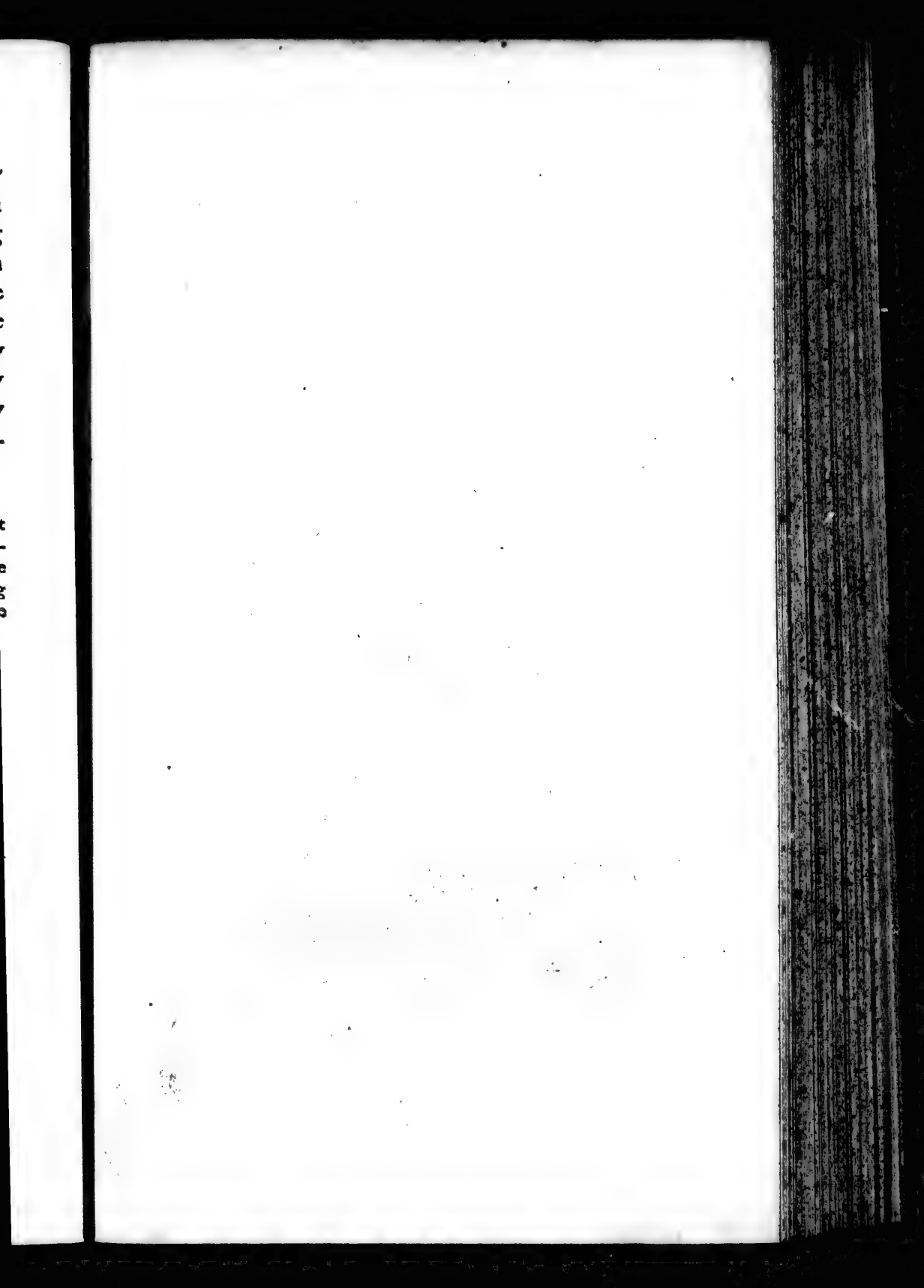
“ Others appeared in 1765, and the sea-
 “ shore was covered with them. But the north
 “ wind, which had brought them, ceasing to
 “ blow, they did not disperse in the fields, but
 “ departed a few days after.

“ Since that time, they have been seen every

* Belon.

“ winter when the north winds blow constantly
“ twelve or fifteen days. Many appeared in
“ the beginning of 1776; but the ground being
“ covered with snow, most of them remained on
“ the sea; and the rest, which had entered the
“ rivers, or spread on the banks, a short distance
“ from the coast, were compelled to return by
“ the ice floated in the streams or heaped up by
“ the tide. As they were hunted, they grew
“ shy, and they are now sprung at as great dif-
“ tance as other game.”

[A] Specific character of the Brent Goose, *Anas-Bernicla*: “ It
“ is brown; its head, its neck, and its breast, black; a white col-
“ lar.” The name *Brent* or *Brand* seems to be derived from the
Saxon *Brennen*, to burn, and thence transferred to signify marking
or stamping of any kind; in the present case it refers to the white
spot imprinted on each side of the neck, which is black.



N^o 236



THE BERNACLE GOOSE.

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VOL.

The BARNACLE.

LA BERNACHE. *Buff.*

Anas erythropus. Linn. and Gmel.

Bernicla. Briss. Will. Ray, Sibb. &c.

Anser Brenta. Klein.

*In Scotland, Clakie.**

OF the marvellous productions which ignorance, ever credulous, has so long substituted for the simple and truly wonderful operations of nature, the most absurd perhaps, and yet the most celebrated, is the growth of Barnacles and scoters in certain shells called the *conchæ anatiferae* †, or on certain trees on the coasts of Scotland and the Orknies, or even on the rotten timbers of old ships.

Some authors have written that fruits, whose structure already exhibited the lineaments of a fowl, being dropt into the sea, turned into birds. Munster ‡, Saxo Grammaticus and Scaliger assert

* It is sometimes stiled the *Scotch Goose*; in the Orknies it is called *Rod-Gans*; in Holland *Rot-Gans*; in Germany *Baum-Gans*; (tree goose); in Norway *Raatne-Gans*, or *Goul*; in Iceland *Hel-singen*; in Poland *Kaczka Drzewna*.

† Duck-bearing shells.

‡ Geog. Univerf. lib. ii.

this *; Fulgosus † even affirms, that the trees which bear these fruits resemble willows, and produce at the end of their branches small swelled balls containing the embryo of a duck, which hangs by the bill, and when ripe and formed, falls into the sea, and takes to its wings. Vincent of Beauvais chuses rather to attach it to the trunk and bark, whose sap it sucks, till, grown and completely feathered, it bursts from its imprisonment.

Bishop Leslie ‡, Majolus §, Odericus ||, Torquemada ¶, Chavasseur **, the bishop Olaus Magnus ††, and a learned cardinal ‡‡, all attest this strange generation. Hence, the bird has been called *tree-goose* §§; and one of the Orknies, the scene of the prodigy, has received the appellation of Pomona.

This ridiculous notion was judged not sufficiently marvellous by Camden |||, Hector

* In his Commentary on the first Book of Aristotle, *de Plantis*.

† *Lib. i. 6.*

‡ *Chron. Scot.*

§ *Dier. canicular. tract.*

|| In his voyage to Tartary.

¶ *Hexameron.*

** *De Gloria Mudi.*

†† *Rer. Sept. lib. xix. 6 and 7.*

‡‡ *Jacobus Aconensis.*

§§ Pomona is the largest of the Orknies; and contains Kirkwall, the capital of those islands. The origin of the name has given occasion to many conjectures. The derivation hinted at in the text is as probable as the rest; from *pomum* an apple, because of the imaginary *animal-fruits*.—T.

||| *Britannia.*

Boece *, and Turnebius †; for, according to them, the old masts and beams of ships, fallen to pieces and rotting in the water, became crusted with embryos, in form of little mushrooms, or big worms, which were covered by degrees with down or feathers, and at last completed their metamorphosis by changing into birds ‡. Peter Danisi §, Dentatus ||, Wormius ¶, Duchêne **, talk much of this absurd prodigy; which Rondelet, notwithstanding his knowledge and good sense, seems to credit.

Lastly, according to Cardan ††, Gyraldus ‡‡, and Maier, who has written a treatise expressly on this bird, *without father or mother* §§, it originates neither from fruits nor worms, but from shells: and what is still more wonderful than the prodigy itself, Maier opened an hundred of these *goose-bearing* shells, and found in all of them the rudiments of the bird completely

* *Hist. Scotiæ.*

† In Gefner.

‡ A grave doctor, in Aldrovandus, avers with an oath, that he had seen and kept the little Barnacles still shapeless and as they dropt from the rotten timber.

§ Description of Europe, article *Ireland*.

|| Apud Alex. ab Alex. *Genial dier*.

¶ Citing the *Epitome of the Scottish chronicles*.

** In his *History of England*.

†† De variet. Rer. lib. vii. 3.

‡‡ See *Traité de l'Origine des Macreuscs*.

§§ *Traclatus de volucris arboreâ, absque patre & matre, in insulis Orcadum, formâ anserculorum proveniente.* Aut. Mich. Maiero, Archiatro, Comite Imperiali, &c. *Francfurti*, 1629, in 12mo.

formed *.—Such wild whimsies and chimeras have been retailed concerning the origin of the Barnacles †: but as these fables once enjoyed great celebrity, and were admitted by many authors ‡, we have thought proper to relate them, in order to show how contagious are the errors of science, and how prone are men to the fascinations of the marvellous ||.

But

* Count Maier has stuffed his treatise with so many absurdities and puerilities, that they are alone sufficient to destroy his evidence. He proves the possibility of the miraculous generation of the Barnacles by the existence of hobgoblins, and that of forcerers; he derives it from the immediate influence of the stars; and, if his simplicity were not excessive, we might accuse him of irreverence in the chapter which he entitles, *Quid finis proprius hujus volucris generationis sit, ut referat duplici sua naturâ, vegetabili & animali, Christum Deum & hominem, qui quoque sine patre & matre, ut illa, existit.*

† In the northern languages *baum-gans*, and in Latin *anser arboreus*.

‡ Besides those which we have already cited, see *Traité de l'Origine des Macreuses*, by M. Graindorge, doctor of the faculty of Medicine, at Montpellier, and published by M. Th. Malouin, &c. at Caen, 1680, in small duodecimo.—*Denfingii fasciculus dissert. selectarum, inter quas una de anseribus Scoticis*; Groningæ, 1664, in 12mo.—*Ejusdem dissert. de Mandragoræ pomis, ubi, pag. 38; de anseribus Scoticis*; Groningæ, 1659, in 12mo.—*Jb. Ernestus Hering dissert. de ortu avis Britannicæ*; Wittembergæ, 1665, in 4to.—Tancred Robinson's Observations on the Macreuse, and the Scotch Barnacle, *Philos. Transf.* vol. xv. N° 172.—Relation concerning Barnacles, by Sir Robert Moray, *Phil. Transf.* N° 137, &c.

|| I shall transcribe, for the entertainment of my reader, an account of this wonderful transformation, from our old botanist Gerard:

"But what our eyes have seene, and hands have touched, we shall declare. There is a small island in Lancashire called the *Pile of Foulders*, wherein are found broken pieces of old and bruised

ships,

But even of our ancient naturalists many rejected these fables : Belon, always sober and judicious, laughs at them ; nor have Clusius, Deusingius, Albertus Magnus believed report. Bartholin discovered that these goose-bearing conchs contained only a shell-fish of a particular kind : and from the descriptions given of them by

“ ships, some whereof have been cast thither by shipwracke, and
 “ also the trunks and bodies with the branches of old and rotten
 “ trees, cast up there likewise ; whereon is found a certain spume
 “ or froth that in time breedeth unto certain shels, in shape like
 “ those of the Muskle, but sharper pointed, and of a whitish colour,
 “ wherein is contained a thing in form like a lace of silke finely
 “ woven as it were together, of a whitish colour ; one end whereof
 “ is fastened unto the inside of the shell, even as the fish of Oysters
 “ and Muskles are ; the other end is made fast unto the belly of a
 “ rude masse or lumpe, which in time commeth to the shape and
 “ form of a bird : when it is perfectly formed, the shell gapeth open,
 “ and the first thing that appeareth is the foresaid lace or string ;
 “ next come the legs of the bird hanging out, and as it groweth
 “ greater it openeth the shell by degrees, till at length it has all
 “ come forth, and hangeth only by the bill : in short space after it
 “ cometh to full maturitie, and falleth into the sea, where it gather-
 “ eth feathers, and groweth to a fowle bigger than a Mallard and
 “ lesser than a Goose, having black legs, and bill or beake, and sea-
 “ thers black and white, spotted in such manner as our Mag-Pie,
 “ called in some places *Pie-Annet*, which the people of Lancashire
 “ call by no other name than tree-geese ; which place aforesaid,
 “ and all those places adjoyning, do so much abound therewith, that
 “ one of the best is bought for three-pence. For the truth hereof,
 “ if any doubt, may it please them to repaire to me, and I shall sa-
 “ tisfy them by the testimony of good witnesses.”

Few miracles are related more circumstantially, or rest on better evidence. So natural to man is credulity ! which passes all bounds, when the prodigy of an event takes firm hold of the imagination, and lays the understanding asleep.—T.

Wormius *, Lobel †, and others, as well as from the figures published by Aldrovandus and Gesner, it is easy to perceive that they are the *pousse-pieds* ‡ of the coasts of Brittany, which are affixed to a common pedicle, and send off a bundle of feathery filaments, that to a prejudiced imagination might appear the clustered lineaments of birds hanging from the branches. We need not remark the absurdity of such a notion: Æneas Sylvius relates, that chancing to be in Scotland, he inquired particularly for the place of the wonderful metamorphosis of the Barnacle, but was referred to the remote Hebrides and Orknies; and he adds pleasantly, that, as he sought to advance, the miracle retired from him,

* The goose-bearing shell is triangular, small, externally white-blue, glistening, light, compressed, an inch in length and in breadth; when ripe, it consists of four valves, sometimes more, of which the two anterior are thrice as large as the two posterior, which adhere to them as appendices, very thin round a thicker part, by which they cling concealed to the sea-weed; when opened, they show rudiments of a little bird, and the feathers pretty distinct. *Wormius in Museo, lib. iii. 7.*

† We had shells with a rough thickish pedicle broken off from the bottom of an old ship; they are small, whitish without, glistening, light, have the thinness of egg-shells, fragile, and bivalve. They are of the size of a compressed walnut, hang like fungous excrescences from the bottoms of ships, where they seem to extract life for a young bird, whose rudiment is seen from the extreme part of the opened shell. *Lobel.*

‡ So called on account of the fibres which branch from it. It is the same with the *Barnacle* (the name also of the bird) a species of multivalve, the *Lepas Anatifera* of Linnæus.—*T.*

As the Barnacles breed in the distant parts of the north, no person for a long time had observed their birth, or even seen their nests; and the Dutch, in a voyage which extended to the eightieth degree of latitude, were the first who discovered these*. Yet the Barnacles must nestle in Norway, if it be true, as Pontoppidan relates, that they are seen the whole summer†. They appear in autumn and winter on the coasts of Yorkshire‡ and Lancashire in England||, where they are easily caught with nets, and shew none of the shyness and cunning natural to birds of their kind§. They occur also in

* " On the west side of Greenland, was a great winding and a flat shore resembling an island; we there found many eggs of Barnacles (which the Dutch call *rotgansen*); we found also some of them hatching, which, on being driven away, cried *rot, rot*, *rot*, (hence their name); one we killed with a stone, we cooked it, and ate it with sixty eggs which we had carried to the ship.

" These geese or Barnacles were real geese, called *rotgansen*, which come every year in great numbers about Wierengen in Holland, and it was hitherto unknown where they laid their eggs and reared their young; and hence it has happened that no authors have scrupled to write that they are bred on the trees in Scotland... Nor need we wonder that hitherto the retreats where these birds hatch, were unknown, since no person has ever reached the eightieth degree of latitude, much less seen the birds sitting on their eggs." *Trois navigations faites par les Hollandois au Septentrion, par Gerard de Vora; Paris, 1599, pp. 112 and 113.*

† Journal Etrangere, *Fevrier, 1777.*

‡ Lister's Letter to Ray, *Philos. Transf.* No 175.

|| Willughby.

§ Johnson. He says this of the little Barnacle, which we shall find to be only a variety.

Ireland, particularly in Lough-foyl, near Londonderry, where they are observed diving incessantly to crop the roots of the large reeds, whose sweet pith nourishes them, and, it is said, makes their flesh well-tasted *. Seldom they visit France; yet one has been killed in Burgundy, whither it had been driven by the stormy winds of a boisterous winter †.

The Barnacle is certainly of the family of the geese; and Aldrovandus justly blames Gesner for ranging it with the ducks. In fact, it is rather smaller and lighter, it has a slenderer neck, a shorter bill, and legs proportionally taller than the Goose. But it has its figure, its port, and all its shapes; its plumage is agreeably broken with large white and black spaces; and hence Belon has stiled it the *nun* (*nonnette*, ou *religieuse*). Its face is white, and two small black streaks join the eyes with the nostrils; a black *domino* covers the neck, and falls with a round edge on the top of the back, and of the breast; all the mantle is richly waved with gray and black, with a white fringe, and all the under side of the body is of a fine clouded white.

Some authors speak of a second species of

* Nat. Hist. of Ireland, p. 192. [They appear in great numbers on the north of Ireland in August, and retire in March. They are caught in their passages, by nets stretched across the rivers.—T.]

† It was brought from Dijon to M. Hebert, who communicated this fact.

Barnacle,

Barnacle *, which they represent as exactly like the other, only somewhat smaller. But this difference of size is too inconsiderable to constitute two species; and we are of the same opinion with Klein on this subject, who, after a comparison of these two Barnacles, concluded that they were only varieties.

• *Anas Erythropus*, var. Linn. and Gmel.

Bernicla Minor. Briss.

Brentus. Gefner, Johnst. and Will.

Anser Brenta. Klein.

The Rat, or Road Goose. Will.

Thus described by Brisson: "Above it is dull cinereous, the margins of its feathers whitish; below white; its top, and the upper part of its neck, blackish; the fore part of its head and its throat fulvous; the lower part of its neck and its breast brown; its rump bright white; its middle tail quills black; the outermost white on both sides."

[A] Specific character of the Barnacle, *Anas Erythropus*: "It is cinereous, its front white." Its length twenty-five inches, its alar extent fifty-three, and its weight five pounds. It is frequent likewise on the coasts of Hudson's Bay.

The E I D E R*.

Anas Mollissima. Linn. Gmel, Muller, and Klein.

Anser Lanuginosus. Briss.

Anas Sancti Cuthberti, seu Farnensis. Will. and Ray.

Eider Anas. Sibbald.

The Cok. Martin's West. Isl.

The Eider, or Soft-feathered Duck:—The Cuthbert Duck. Will.

The Great Black and White Duck. Edw.

The Eider, or Cuthbert Duck. Penn. and Lath.

IT is this bird that furnishes the soft, warm, light down which bears its name. The Eider is a species of goose, which inhabits the northern seas, and descends no lower than the coasts of Scotland.

It is nearly as large as a goose: the principal colours of the male are white and black; and,

* Sometimes the *Eider* is reckoned a species of goose. Thus, in German *Eider Gans*, and in Danish *Edder Gaasen*: sometimes a duck; as in German *Eider Ente*, and in Danish *Edder Anden*: at other times it has general names;—in German *Eider Vogel*: in Swedish *Ad, Ada, Aed, Aeda, Eider, Gudunge*: in Danish *Edder Fuglen, Aer Fugl, Aer Bolte*: in Icelandic *Aedar Fugl, Adar, Aedder, Edder Fugl*: in Norwegian *Edder, Edder Fugl*. On the isle of Ferroe it is called *Eider, Eder Fugl*, and *Eiderblicke* or *Aerblick* when its plumage has become white: at Bornholm *Aer Boer*: in Greenland *Mittek* or *Merkit*, according to Anderson, and the female *Arnaviak*: in Lapland *Likka*.

In French it is sometimes stiled the *down goose*, or the *down duck* (*oisie à duvet*, or *canard à duvet*). It is said, in the text, that the name *Eider down*, which the French seem to have adopted from us, was corrupted into *aigle don*, and the bird which yields it supposed to be a kind of eagle,

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N^o 237



THE EIDER GOOSE.

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different from the usual disposition, the former covers the back, and the latter the belly; and the same obscure black appears on the top of the head, and on the quills of the tail and of the wings, except the feathers next the body, which are white. Below the nape of the neck there is a broad greenish plate; and the white of the breast is washed with a brick or wine tint. The female is not so large as the male, and all its plumage is uniformly tinged with rusty and blackish, in transverse and waving lines, on a brown gray ground. In both sexes, we perceive scallops traced by little close feathers like velvet, which extend from the front on both sides of the bill, and almost under the nostrils.

The Eider down is highly esteemed; and even on the spot, in Norway and Iceland, it sells very dear*. This substance is so elastic and so light, that two or three pounds of it, though pressed into a ball that may be held in the hand, will so swell as to fill and distend the foot-covering of a large bed.

The best down, which is called *live down* (*duvet viv*) is what the Eider pulls to line her nest, and which is gathered in the nest itself: for, besides the reluctance to kill so useful a bird †,

* Pontoppidan,

† Pontoppidan says even, that in Norway it is prohibited to kill it for the down: "With the more reason," he adds, "since the feathers of the dead bird are fat, subject to rot, and far from being so light as what the female plucks, to form a bed for its young."

the down taken from the dead body is inferior; either because the down is in full perfection at the breeding season, or because the bird plucks only the finest and most delicate, that which covers the stomach and belly,

Care must be taken not to seek and gather the down in the nests, till after some days of dry weather; nor must the birds be driven hastily from their nests, for in the fright they drop their excrements, with which the down is often fouled*. To clear it of the dung, the feathers are spread upon a sieve of stretched cords, which are beat with a stick; so that the heavy clots fall through, and the light down jumps off.

The eggs are five or six in number †, of a deep green, and very good to eat ‡. If they be stolen, the female strips her plumage again to make a second hatch, which is smaller than the first. If the nest be again plundered, as the female can furnish no more down, the male lends his aid, and plucks the feathers from his

* Natural History of the Eider, by Martin Thrane Brunnich, art. 41.

† "It is not uncommon," says Van Troil, "to find more, even ten and upwards, in the same nest occupied by two females, which live together in perfect concord." *Letters on Iceland*.

‡ Anderson pretends, that to have a number of these, a stick of a foot in height is planted in the nest, and that the bird continues to lay till the heap of eggs rises to the point of this stick, in order that she may sit to cover them. But were it as true as it is improbable, that the Icelanders employed this barbarous artifice, they would ill understand their true interest, to destroy a bird so precious to them, since, worn out with excessive laying, it generally expires.

breast;

breast; which is the reason that the lining of the third nest is whiter than that of the first. But before we seize the spoils, we must now wait till the mother has hatched her eggs, which at most are only two or three, perhaps but one: for if her hopes of progeny are dashed a third time, she will forever abandon the place; but if she be permitted to rear her family, she will return the following year, and bring with her the young Eiders.

In Norway and Iceland, the districts to which the Eiders habitually resort to build their nest, are a species of property which is carefully preserved, and transmitted by inheritance. There are spots that contain many hundred of these nests; and we may judge, from the high price of down, what profit the proprietor must draw*. The Icelanders are at the utmost pains to invite the Eiders, each into his own estate; and when they perceive that these birds begin to haunt some of the islets which maintain herds, they soon remove the cattle and dogs to the main land, and procure the Eiders an undisturbed retreat†. These people have even formed, by art and persevering labour, many small islands by disjoining from the continent several promontories that stretch into the sea. It is in these retreats of solitude and tranquillity

* To take an Eider's nest on another's lands, is reputed theft in Iceland. *Van Troil*.

† Brunnich, § 48.

that

that the Eiders love to settle; though they are not averse to nestle near habitations, if nothing molest them, and if the dogs and cattle be removed. "A perion," says Horrebow, "as I myself have witnessed, may walk among these birds while they are sitting, and not scare them; he may even take eggs, and yet they will renew their laying as often as three times."

All the down that can be collected is sold annually to Danish or Dutch merchants*, who come to buy it at Drontheim, and other parts of Norway and Iceland. Little or none of it is left in the country†. In that rough climate, the robust hunter, covered with bear's skin, enjoys, in his solitary hut, a peaceful, perhaps a profound sleep; while, in polished nations, the man of ambition, stretched on a bed of Eider down, and under a gilded roof, idly seeks to procure the sweets of repose.

We shall here add some facts relating to the Eider, extracted from a small work of M. Brunnich, written in Danish, and translated into German, from which we directed a French version to be made.

* "A female in her nest gives commonly half a pound of down, which is reduced to one half in cleaning . . . The cleaned down is valued by the Icelanders at forty-five *sch* (of which forty-eight make a rix-dollar) the pound; the raw down at sixteen *sch* . . . The Icelandic company sold, in 1750, down amounting in value to 3757 rix-dollars (about 850 l. sterling), besides what was sent directly to Gluckstad." *Van Troil*.

† *Hist. des Voy. tom. xviii. p. 21.*

In the breeding season, some male Eiders are seen flying single: The Norwegians call them *giæld-fugl*, *giæld-æe* *; they are such as have not obtained mates, and have been worsted in the struggles for the possession of the females, which are fewer in this species than the males. Yet they sooner arrive at maturity, so that the old males and the young females pair together, and hence their first hatch is smaller than the subsequent.

At the time of pairing, the male continually screams *ba, bo*, with a raucous and moaning voice; that of the female resembles the cry of a common duck. The first object of these birds is to place their nest under shelter of some stones or bushes, and particularly of junipers. Both male and female labour in concert; and the latter pulls the down from her breast, and heaps it, so as to form quite round the nest a thick puffed roll, which she presses on the eggs, when she goes in quest of food: for the male assists not in covering, but keeps watch in the vicinity, and gives notice if an enemy appears; the female then conceals her head, and if the danger is urgent, she flies to her mate, who treats her harshly, it is said, if any accident happen to the brood. The ravens suck the eggs, and kill the young; the mother therefore hastens to remove them from the nest, and a few hours after they are hatched,

* i. e. *Free bird*; *free Eider*.—T.

she takes them on her back, and, with an easy flight, transports them to the sea.

The male now leaves her, and neither of them returns more to land. Several hatches unite at sea, and form flocks of twenty or thirty with their mothers, which lead them, and continually dash the water, to bring up, with the mud and sediment, insects and small shell-fish for such of the young as are too weak to dive themselves. This happens from the month of July, or even June; and the Greenlanders reckon the time of summer by the age of the young Eiders.

It is not until the third year that the male acquires regular and distinct colours: those of the female are much sooner unfolded; and in every respect the growth of the male is more rapid than that of the female. Both of them are at first covered or clothed with a blackish down.

The Eider dives very deep after fish, and feeds also on muscles and other shell-fish, and seems very keen upon the garbage which the fishermen throw out of their barks. These birds remain on the sea the whole winter, even near Greenland, seeking the parts of the coast most clear of ice, and returning to land only in the evening, or previous to a storm, which their flight to the coast during the day, it is said, infallibly forebodes.

Though the Eiders journey, and not only shift from one place to another, but venture so far on sea, that they have been supposed to pass

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from Greenland to America *; yet they cannot properly be said to be birds of passage, since they never leave the frozen climates, which their close down so well fits them to bear. They can procure subsistence wherever the sea is open: they advance from the coast of Greenland to the island of Disco, but no farther; because, beyond it, the sea is covered with ice †; it appears even that they resort thither less than formerly ‡. Yet they are found at Spitzbergen; for the Eider is the same with the *mountain duck* of Martens, though he himself mistook it ||. From

* Brunnich.

† Anderson.

‡ The Greenlanders say, that formerly they filled in a very little time a boat with Eider's eggs, in the islands round Ball River, and that they could not walk without treading on the eggs; but this plenty begins to diminish, though still astonishing. *Idem*.

|| The mountain duck is a kind of a wild duck, or rather of a wild goose, as large as a middling goose; its plumage is mottled with different colours, and very beautiful; that of the male is marked with black and white, and the female has its feathers of the same colour with that of a partridge . . . They make their nests in low places with their own feathers, which they pluck from under their belly, and which they mix with moss; but these are not the same with what is called the *Eider down* (in this Martens is mistaken, since every circumstance of his description characterizes the Eider.) We found in their nests sometimes two, sometimes three, and even four eggs, of a pale green, and somewhat larger than those of our ducks. Our sailors, boring both ends, took out the white and yolk, and threaded them. The vessels which had arrived before us at Spitzbergen, had taken numbers of these birds. The first days they were not at all shy, but in time they grew so cautious, that one could hardly approach so near them as to take a proper aim. It was in the south haven, and on the 18th of June, that we first killed one. *Rassemblement des Voyages du Nord, tom. ii. p. 98.*

the note of Steller, cited below, we may also gather that the Eider frequents Bering's Island, and the point of the Kuriles *. In our seas, the most southern parts which these birds visit, are the islands Kerago and Kona, near the coasts of Scotland; Bornholm, Christiansoë, and the province of Gothland in Sweden †.

* Steller saw, in the month of July, in Bering's Island, an eighth species of goose, about the size of the white spotted one: the wings were black; the ears of a greenish white; eyes black, edged with yellow; the bill red, with a black ray quite round it, an excrescence as in the Muscovy or the Chinese goose; this excrescence is bare and yellowish, except that it is striped from one end to the other with small feathers of a bluish black. The natives of the country report, that this goose is found in the first island Kurilski, but is never seen on the continent. *Krascheninickoff*.

† Brunnich.

[A] Specific character of the Eider, *Anas Mollissima*: "Its bill is cylindrical; its cere cleft behind, and wrinkled." The male is twice as large as a common tame duck; the female weighs three pounds and an half. The Eiders occur in the northern parts of both continents: in Greenland they build their nests among the grass, and in Sweden among the juniper bushes. They dive to great depths for their food, which consists of various sorts of shell-fish: the Greenlanders pursue them, and dart them as they rise fatigued. Their flesh is good, and their skin is esteemed an excellent inner garment. The most southern retreats of these birds are the western isles of Scotland, Inch-corm in the Firth of Forth, and the Farn isles on the Northumbrian coasts. On the latter Mr. Pennant landed, 15th July 1769; and we shall borrow the following extract from his narrative.—"We found the female Eider ducks at that time sitting: "the lower part of their nests was made of sea plants; the upper "part was formed of the down which they pull off their own breasts, "in which the eggs were surrounded, and warmly bedded: in some "were three, in others five eggs, of a large size, and pale olive colour, as smooth and glossy as if varnished over. The nests were "built on the beach, among the loose pebbles not far from the water. The ducks sit very close, nor will they rise till you almost "tread

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" tread on them. The drakes separate themselves during the breeding season. We robbed a few of their nests of the down, and after carefully separating it from the tang, found that the down weighed only three quarters of an ounce, but was so elastic as to fill the crown of the largest hat. The people of this country call these St. Cuthbert's ducks, from the saint of the islands."

A Tour in Scotland, 8vo. pp. 35 and 36.

It appears from this extract, that the quantity of down which lines the Eider's nests, is much smaller on the Farn isles than in Iceland; a proof that these birds accommodate themselves according to situation and climate.

The D U C K*.

LE CANARD. *Buff.*

1. *Anas Boschas.* Linn. and Gmel.
Anas Fera. Aldrov. Charleton, and Briff.
Anas Sylvestris. Klein.
Boschas Major. Will. Johnst. and Sibb.
The Common Wild Duck and Mallard. Will. Ray, Penn. and Lath.
2. *Anas Domestica.* Linn. Gmel. Aldrov. Johnst. Briff. &c.
Anas Cicur. Gefner.
The Common Tame Duck. Will. Ray, Penn. Lath. &c.

MAN made a double conquest when he subdued inhabitants at once of the air and of the water. Free in both these vast elements, equally fitted to roam in the regions of the at-

* The Greek name of the Duck, *Νησσα*, is derived from *νωω*, to swim; and the Latin *Anas* has the same origin. In Italian it is called *Anitra*, *Anatre*, *Anadra*; the wild kind *Anitra Salvatica*, *Cefone*: in Spanish *Anande*: in Portuguese *Aden*: in Catalonian *Anech*: in Genoese *Ania*: in Parmese *Sassa*: in German *Ente*, formerly *Ante*; the male *Racha*, *Racktscha*, words imitative of his hoarse voice, and corrupted into *Entrach* or *Entrich*; the wild sort *Wilde Ente*, *Mertz Ente*, *Gros Ente*, *Hag Ente*: in Silesian *Hatsche*, and the wild *Raetsch Endte*: in Flemish *Aente* or *Aende*: in Dutch the Drake is called *Woordt* or *Waerd*, and the Duck *Eendt*: in Swedish the wild Duck is named *Graes End*, or *Blaonacke*; the tame *Anka*: in Russian *Outba*: in Greenlandic *Kachletong*: in Polish *Kaczka*; the wild kind *Kaczka Dzika*: in Illyrian *Kaczier*. The modern Greeks call the Ducks *Pappi*, or, according to some, *Papitra* or *Chena*: the people of India *Bebe*, according to Aldrovandus: the inhabitants of the isle of *Lugon* *Balivis*: the natives of Barbary *Brack*: those of the Society Islands *Mora*: the Mexicans *Metzcanaubtli*.

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N^o 238



THE DRAKE.

N^o 23



N^o 239



THE FEMALE DUCK.

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mosphere, to glide through the ocean or plunge under its billows, the aquatic birds seemed destined by nature to live for ever remote from our society, and from the limits of our dominion.

Their only tie to the land is the necessity of depositing the fruit of their loves. By availing ourselves of that necessity, and of the feeling which so powerfully animates all creatures, we have enslaved them without imposing constraint; and by their fondness to their offspring we have attached them to our abodes.

Eggs, taken from the reeds and rushes amidst water, and set under an adopted mother, first produced, in our farm-yards, wild, shy, fugitive birds, perpetually roving and unsettled, and impatient to regain the abodes of liberty. But after they had tasted the pleasures of love in the domestic asylum, the same fowls, and more especially their descendants, grew gentler and more tractable, and, under our care and protection, bred the tame sorts: for it is a general remark, that, till animals propagate in the domestic state, some individuals may be enslaved, but the species will preserve their independence. If, in spite of their irksome bondage, the passion, which unites the sexes, kindles and dilates, it will sweeten their condition, and impart all the charms of freedom: they forget, they relinquish the prerogatives of the savage state: and the scene of their first pleasures, of their early loves, that scene, so dear to every feeling creature, becomes

their favourite abode. The education of the family farther augments this attachment, and, at the same time, communicates it to the young, which, being citizens by birth of the residence adopted by their parents, never seek to change it. They know not other situations, and they contract a warm predilection for the place of their nativity; a passion felt even by slaves.

Yet have we subjugated only a small portion of the whole species, particularly in those birds which nature, bestowing a double privilege, has destined to rove in the air and on the sea. Some, indeed, have become our captives, but the bulk of them have eluded our attempts, and will for ever preserve their independence.

The species of the Duck and that of the goose, are thus divided into two great tribes; of which the one, long since tamed, propagates in our court-yards, forming one of the most useful and most numerous families of our poultry; and the other, no doubt still more extensive, constantly avoids us, and lives on the water, only visiting us in winter, and retiring in the spring, to breed in the distant, sequestered regions of the north.

It is about the 15th of October that the Ducks begin to appear in France*. At first, their flocks are small and unfrequent; but these

* At least in our northern provinces; their appearance is later in the southern countries: at Malta, for example, as we are assured by the Commander Desmazy, they are not seen till November.

are succeeded in November by more numerous bodies. These birds are distinguished by the oblique lines and regular triangles which they form in the air. After they have all arrived from the northern countries, they are seen continually flying from one pool or river to another. Now is the time when the fowlers make great captures, by watching in the day, by lying in ambush at night, or by employing different snares or large nets. But all these methods of surprising or decoying, must be dextrously managed, since Ducks are exceedingly mistrustful. They never alight till after making several wheels round the spot; as if their intention were to survey it, and discover whether an enemy lurked in it. And when they settle, they take every precaution: they bend their flight, and dart obliquely on the surface of the water, which they raze and skim; then they swim at large, keeping always at a distance from the banks. At the same time, some of them watch for the public safety, and give alarm when they apprehend danger; insomuch that the sportsman is often deceived, and sees them rise before he can fire. Yet if he judges himself sufficiently near, he need not be precipitate; for as the wild Duck springs vertically *, it does not get so soon out of reach as a bird that shoots directly onwards,

* Belon.

and it allows as much time for taking aim when flushed at the distance of sixty paces, as a partridge at that of thirty.

It is in the evening, *about night-fall*, by the edge of water into which female domestic Ducks are turned to attract them *, that the fowler lies in his hut, or covered and concealed any other way †, and fires on them with advantage. He knows the arrival of these birds by the rustling of their wings ‡, and he makes

* This manner of decoying the birds is ancient, since Alciatus cites the experiment in one of his epigrams :

*Altilis alleſtator anas . . .
Congeneres cernens volitare per aëra turmas,
Garrit, in illarum ſe recipitque gregem,
Incautas donec prætenſa in retia ducat.*

† In time of ſnow I went a-ducking entirely covered with a large white ſheet, having a white paper mask on my face, and a white ribband lapped about the barrel of my gun: they ſuffered me to approach without ſuſpicion, and the white ribband enabled me to ſee half an hour longer; I ſhot even by the glimmering of the moon, and loſt very few birds on the ſnow. *Note communicated by M. Hebert.*

‡ I ſhall here deſcribe a method of fowling, of which I was both a ſpectator and an actor: it was in a plain between Laon and Rheims that a man, and we may eaſily judge that he was not the richeſt in the country, had taken his ſtation in the middle of a meadow; there, wrapped in an old mantle, with no other ſhelter than a hurdle of hazel branches, which ſcreened him from the wind, he waited patiently till ſome flock of wild Ducks ſhould paſs within his reach; he was ſitting on a cage of ozier, divided into three compartments, and filled with tame drakes; his poſt was in the neighbourhood of a river, which winded in this meadow, and at a place where its banks roſe ſeven or eight feet; to one of the banks of this river he had built a hut of reeds, like a ſentry-box, perforated with loop-holes, which he could open or ſhut at pleaſure, to ſpy his prey

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makes haste to kill the first comers ; for in this late season the night creeps fast on, and as the Ducks alight only in the dusk, the time is precious. But a greater capture may be made by spreading a net over the surface of the water, and leading the drag into the hut ; in this way the whole flock of wild ducks decoyed by the domestic calls will be taken. This sport requires a stock of patience ; and the fowler, motionless and half-frozen, is more likely to catch cold than game. But the pleasure usually predominates, hope urges him to renew his application ;—and the same night, that blowing his fingers, he swears never to return to his frozen

and take his aim ; if he saw a flock of wild Ducks in the air (and they often passed, because at this season of sport they were fired at on all sides in the marshes) he let loose two or three of his tame drakes, which took flight and alighted within thirty paces of the sentry-box, where he had scattered some grains of oats, which these drakes gathered greedily, for they were kept hungry ; there were also some female Ducks fastened to some poles stuck into the banks, and laid close on the surface of the water, so that these Ducks could not come to the brink, but were obliged to call upon the tame drakes. The wild ones, after several turns in the air, stooped downwards and followed the tame drakes, or, if they lingered too long, the person dispatched a second flight of drakes, and even a third, and then ran from his observatory to his hut without being perceived ; all the banks were strewed with branches of trees and with reeds ; he opened that loop-hole which answered best, observed the favourable moment when he could fire without killing his calls, and as he pointed on the surface of the water, almost horizontally, and saw the Ducks heads, he killed sometimes five or six at a shot.

Extract of a Memoir of M. Hebert.

post,

post, he lays projects for the succeeding evening *.

In

* We owe to M. Baillon the idea and the detail of this sort of sport; for which we thank him, and which we shall give in his own words :

" A considerable number of wild Ducks is taken every winter in our marshes near the sea; the contrivance employed to decoy them into the nets is very ingenious; it manifestly proves the disposition of these birds to society. It is this:—

" They choose in the marshes a flat covered with about two feet of water, which they confine with a slight bank; the largest and remotest hedges and trees are the best: on the edge they form an earthen hut well lined with clay at the bottom, and covered with fods laid on plashed branches; there the fowler sits, and his head overtops the hut.

" They stretch in the water, nets like those for larks, furnished with two strong iron bars, which hold them down on the mud; the extending cords are fixed in the hut.

" The fowler fastens several Ducks before the nets; and those of the wild breed, and procured from eggs gathered in the spring, are the best: the drakes, with which they are paired in October, are shut up in a corner of the lodge.

" The attentive fowler surveys the horizon on all sides, especially towards the north; as soon as he perceives a flock of wild Ducks, he takes one of the drakes, and throws it into the air: this bird flies instantly to the rest and joins them; the females, over which it passes, scream and call; if it delays too long to return, a second is dispatched, and often a third; the redoubled cries of the females bring them back, the wild ones follow, and alight with them; the form of the hut sometimes disquiets them, but they instantly gain confidence when they see their betrayers swim securely to the females, which are between the hut and the nets; they continue to advance, and the fowler attends the favourable instant, and sometimes takes a dozen or more at a single draw.

" I have always remarked, that the Ducks trained to this sport seldom came within the inclosure of the net, but flew over it, and knew the spot, though nothing appeared out of the water.

" All the marsh birds, such as the whistlers, the shovelers, the

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In Lorraine, on the pools which border on the Sarre, Ducks are caught with a net stretched vertically, and like the draw-net used for woodcocks *. In many other places, the fowler sitting in a boat, covered with boughs and reeds, approaches slowly the Ducks that are dispersed on the water, which he collects together by

“ teals, the pochards, &c. come to the call of the Ducks, or follow the betrayers.

“ This sport is practised only in moon-light; the most favourable time is the rising of that luminary, and an hour before day-break. It is unprofitable, except in northerly or north-easterly winds, because the Ducks then journey, or are in motion to congregate. I have seen to the amount of an hundred taken by the same nets in one night. A man of weak constitution, or sensible to cold, could not support the hardships inseparable from this sort of fowling: he must remain motionless, and often drenched the whole night in the middle of the marshes.

“ I have often seen the wild Ducks descend to the call of the females of their own kind, how elevated soever they might be in the air; the betrayers flew sometimes with them more than a quarter of an hour; each of the fowlers over whom the flock passes, dispatches others to them; they disperse, and each band of traitors leads off a detachment; that of the fowlers which have wild females is constantly the largest.

“ In general ducking is a seducing but laborious sport: a person must brave the rigour of the weather, which, at that season, is often severe, his feet soaked in the water, and his toes chilled with the frost: he must patiently wait at night in the hut, or walk out before day on the brooks and the rivulets. I remember to have gone a-ducking every day for a month together, when the weather was excessively cold, yet resolving with myself that each excursion should be my last; and to crown my hardships, I had the mortification to see my excellent dog drowned, which was caught among the ice. I speak as an old sportsman, recounting my feats.” *Extract from the excellent Memoir which M. Hebert has obligingly written for us on Ducks.*

* M. Lottinger.

setting

setting a little dog after them: the fear of an enemy prompts them to assemble, and they gradually join. They may be fired at, one by one, as they come near; and to prevent noise, a sort of trunk-guns are used, or a discharge may be made on the whole flock with a large blunderbuss, which scatters the shot, and which will kill or wound a good number; but no more than one fire can be given, for those which escape know ever after the boat, and carefully avoid it*. This very amusing sport is called *the frolic (badinage)*.

The wild Ducks are also caught with hooks baited with *calves lights*, and fastened to floating hoops. Indeed the fowling for Ducks is every where † one of the chief sports of autumn ‡ and the beginning of winter.

Of

* Ducks have a sort of memory, which recognizes the snare that they have once escaped. At Nantua, on the edge of a lake, a hut was constructed with branches of fir and with snow; and to make the Ducks to approach it, they are pursued at a distance by two boats; this plan succeeded eight or ten days, after which it was impossible to make them return. *M. Hebert*.

† Navarette makes the Chinese practise the same stratagem for catching Ducks, that Peter Martyr describes as an invention of the Indians at Cuba, who swimming on their lakes, he says, with their head only out of the water, and covered by a calibash, catch the geese by the feet.

‡ The method of ducking used by the Kamtschadales is thus described: "Autumn is the season of the great ducking at Kamtschatka; " they go to the places covered with lakes, or full of rivers and intersected by woods; they clear the avenues across these woods from " one lake to another, they stretch between the two, nets supported " by high poles, and which can be let down by slipping cords, of

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Of all the provinces in France, Picardy is that wherein the breeding of tame Ducks is most attended to, and the catching of the wild ones the most profitable; infomuch, that it brings a pretty considerable revenue to that country *. It is conducted on an extensive plan

“ which they hold the ends; at evening these nets being raised as high as the Ducks flight, these birds shoot across in multitudes, and with such force, that they sometimes break through the barrier, but are oftener caught.

“ These Ducks serve as a barometer and a weather-cock to the Kamtschadales, for they pretend that these birds turn and fly always against the wind which is to blow.” *Hist. Gen. des Voy. tom. xix. p. 274.*

“ Ducks are remarkably numerous in Poland, especially on the river Styr in Volhinia, for there one hundred and twenty or an hundred and eighty, enticed by Buck wheat, are often taken at once by a net.” *Rzaczynski.*

* “ A good part of the wild Ducks, and other birds of the same kind, which supply the markets of Paris, is brought from Picardy. The quantity caught each winter in the two passages, is astonishing. This sport begins in the Laonois, a few leagues from Laon; from thence to the sea there is a continued chain of marshes or of meadow, that are overflowed in the winter, the extent scarcely less than thirty leagues: when the rivers Oise and Serre swell over their banks, their waters unite, and cover all the interjacent country. The river Somme likewise spreads over an immense country in its inundations. The fowling for Ducks constitutes therefore a branch of trade in Picardy: I have been assured that it was farmed at thirty thousand livres (about £. 1,250.) on the single pool of St. Lambert, near La Fere; it is true that this pool is seven or eight leagues in compass, and perhaps the right of fishing was included. When I resided in that province, there were barks freighted from ten to fifty crowns, according to the advantage of their situation; and I am besides assured that there were some of these duck-boats furnished with nets to the value of three thousand livres (£. 125.)

“ Viewing

plan in the inlets or little creeks, disposed by nature or cut artificially along the margins of lakes, and into the thick clusters of reeds. But no where is this species of ducking carried on with greater preparation, or more agreeable success, than on the beautiful pool of Arminvilliers in Brie. I shall here give the description which was sent to us by M. Rey, secretary to his grace the duke of Penthievre.

“ On one side of this pool, shaded with reeds
 “ and skirted by a small wood, the water forms
 “ a deep creek in the grove, a sort of little sheltered haven, where perpetual calm prevails:
 “ From this haven canals are cut into the heart
 “ of the wood, not in straight lines, but in twisted arches: these, called *borns*, are pretty broad
 “ and deep at their mouth, but gradually contract both in breadth and depth as they extend

“ Viewing these vast marshes from the neighbouring heights, I
 “ perceived that great glades were formed, by cutting the rushes
 “ between two waters with a bill or hook; these glades are nearly
 “ of a triangular shape, and it is in the corners that the nets are
 “ set; they seemed to be a sort of large wheel-nets, that would sink
 “ on letting go the counterpoise which keeps them on the surface
 “ of the water; I am at least certain, that the Ducks are drowned
 “ in them: often have I seen thirties of them spread on the moss,
 “ to dry in the sun, in order to prevent, I was told, the flesh from
 “ contracting a musty smell from the wet feathers; I then learnt
 “ that they drowned the Ducks in the nets; they added, that they
 “ employed little tawny dogs, much like foxes, to collect them and
 “ drive them into the nets: the Ducks collect round a fox, from a
 “ sort of antipathy, as they do about an owl or any other call-bird;
 “ these little dogs are trained to lead them whither they have been
 “ taught.” *Extract of the Memoir communicated by M. Hebert.*

“ and

“ and wind among the trees, and at last draw to
“ a dry point.

“ The canal, from its origin to near its middle, is covered with a cradle-net, at first pretty
“ wide and high, which narrows and descends
“ as the canal contracts, and terminates at its
“ point in a weel, which shuts like a purse.

“ Such is the great snare fitted and prepared
“ for the numerous flocks of Ducks, mixed with
“ pochards, golden-eyes, and teals, which come
“ to alight on this pool in the middle of October. But to draw them to the creek and the
“ fatal *borns*, required some subtle contrivance;
“ and this contrivance has been long concerted
“ and practised.

“ In the midst of the grove and of the canals,
“ dwells the Ducker, who thrice every day goes
“ from his little house to scatter the grain, on
“ which he feeds the whole year above an hundred Ducks, half tame, half wild, that, swimming constantly in the pool, never fail, at the
“ accustomed hour, and at the sound of a whistle,
“ to rise and fly vigorously to the inlet, and wind
“ up the canals where their food waits them.

“ These are the *traitors*, as the Ducker calls
“ them, which mingling on the pool with the
“ wild flocks, lead them to the inlet, and thence
“ decoy them into the *borns*; while, concealed
“ behind a row of reed-hurdles, the Ducker proceeds throwing grain before them, and entices
“ them under the mouth of the cradle-nets;

“ then showing himself through the intervals of
 “ the hurdles, disposed obliquely, and to conceal
 “ him from the Ducks that advance, but disclose
 “ him to the sight of such as have got before,
 “ which in their trepidation rush headlong into
 “ the labyrinth, and drive pellmel into the
 “ weel. The half tame ones seldom enter ; they
 “ are used to the diversion, and return again to
 “ repeat the decoy *.”

In the autumnal passage, the wild ducks roam
 at large on the lakes, and remote from the
 shores ; and there they spend a great part of the
 day resting themselves, or sleeping. “ I have
 “ observed them,” says M. Baillon, “ with a
 “ perspective glass on our largest pools, which
 “ sometimes appear entirely covered with them.
 “ Their heads lay motionless under their wings,
 “ till they all took flight half an hour after sun-
 “ set.”

In fact, the Ducks show more activity in the
 night than in the day : they feed, they journey,
 they arrive and depart chiefly in the evening

* Willughby describes exactly the same mode of ducking as
 practised in the counties of Lincoln and Norfolk in England, and
 where they take, he says, four thousand Ducks probably in the
 course of the winter. He says also, that to collect them, a tawny dog
 is used : moreover, a great number of Ducks must breed in those
 fenny countries, since, according to his account, the greatest cap-
 ture is made when the Ducks are in moult, at which time the boats
 have only to push them forward into the nets stretched on the
 pools. [An ample description of the method of catching Ducks
 in the Lincolnshire fens, may be seen in the British Zoology.—T.]

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and in the night ; and most of those which are seen in broad day have been forced to fly by sportsmen or birds of prey. In the night, the rustling of their wings marks their course. The clapping of their wings is the most noisy at their rising ; and hence Varro gives the Duck the epithet *Quassagipenna*.

As long as the season continues mild, the aquatic insects and small fish, the frogs which have not yet crept under the mud, the seeds of the bull-rush, the water lentil, and some other bog plants, afford abundant subsistence to the Ducks. But towards the end of December or the beginning of January, if the great pieces of standing water are frozen, they remove to running rivers, and afterwards resort to the edge of woods to gather acorns, and sometimes even they alight among the fields sown with corn ; and if the frost last eight or ten days, they disappear, and return not till the thaws in the month of February : at that time, they are seen to arrive in the evening with the south winds, but in smaller numbers *, their flocks being probably thinned by the losses sustained during the winter †. Their social instinct seems to

* " The difference is great between those which arrive and those which retire ; I have been able to make the comparison in Brie for six or seven years ; perhaps not the half re-passe, and yet their number keeps up, and every year as many return." *M. Hebert*.

† " It has often come into my head to compare the population
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to be impaired by the diminution of their numbers; and they no longer keep company with each other. They pass dispersed, fly in the night-time, lurk among the rushes during the day. They halt no longer in a place than a contrary wind constrains them. They seem already to join in pairs, and they hasten to the northern countries, where they breed and spend the summer.

In that season, they may be said to cover all the lakes and all the rivers of Siberia * and

" of the wild Ducks with that of the rooks, the crows, &c. Of
 " these one would be tempted to think that more retire than arrive,
 " and that, because they retire in flocks. They are never killed,
 " they have very few enemies, and they take the surest precautions
 " for their safety. The rigours of our winters cannot affect their
 " temperament, which is adapted to cold; in the end, the earth
 " must be covered with them. Yet their multitude, though it
 " might seem to be innumerable, is fixed; which proves, I think,
 " that they are not, as usually believed, favoured with a longer life
 " than other birds, and if they make only one annual hatch, as I
 " am well assured, their population cannot be immense.

" I suppose that the wild Duck lays fifteen or sixteen eggs, and
 " hatches them: allowing one half for accidents, addle eggs, &c. I
 " would reckon the multiplication at eight young to each pair.
 " Supposing the destruction during winter to reduce this again to
 " an half, the species might still, we see, maintain its numbers.
 " More than the half are killed in Picardy, but very few in Brissac
 " and in Bresse, where there are many pools. When I limit each
 " hatch to eight young, I make but a moderate allowance; the
 " marsh buzzard destroys many, as I am certain; and the fox, it is
 " said, conceals his measures so well as always to catch a few."
M. Hebert.

* In the plain of Mangaséa, on the Jenisea, there are innumerable flocks of geese and Ducks of different kinds. *Gmelin.*—The Barabins Tartars live on milk, fish, . . . game, and especially the Ducks and the divers, which abound in this district. *Idem.*

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Lapland *: they advance as far north even as Spitzbergen † and Greenland ‡. “ In Lap-land,” says M. Høegstroem, “ these birds seem “ disposed, if not to drive away the men, at least “ to fill up their place: for as soon as the Lap-landers go in the spring to the mountains, the “ flocks of wild Ducks fly to the western sea; “ and when the Laplanders descend again in au-umn to inhabit the plain, these birds have “ already retired.” Many other travellers give the same account §: “ I do not believe,” says Regnard, “ that there is a country in the world “ more abounding with Ducks, teals, and other “ water fowls, than Lapland. The rivers are “ all covered with them; . . . and in the month “ of May their nests are in such plenty, that the “ desert seems filled with them.” Yet some pairs of these birds, which circumstances have

* I believe that there is no country in the world which abounds more with Ducks, swans, divers, teals, &c. than Lapland.

Regnard.

† In the south haven of Spitzbergen, there are many little islands, which have no other names than *the birds islands*, because the eggs of Ducks and kirmews are gathered on them. *Hist. Gen. des Voy. tom. i. p. 270.*

‡ When the winter, setting in earlier than usual, surprizes them in these inhospitable shores, great numbers perish. In the winter of 1751, the islands round the Danish mission at Greenland were so covered with wild Ducks, that they were taken by the hand, having been driven to the coast. *Grantz.*

§ In the northern lakes, the Ducks are so numerous as to seem to cover almost the whole water; they are seldom disturbed by the fowler, as the sport is much more abundant in the wood than on the water. *Olaus Magnus.*

prevented from joining the bulk of the species, remain in our temperate countries, and breed in our marshes. It is only on these stragglers that observations could be made with regard to the peculiarities in the amours of these birds, and the attention they bestow on rearing their young in the wild state.

After the first gentle airs, towards the end of February, the males begin to court the females, and sometimes fight with each other through rivalry. The pairing lasts about three weeks. The male seems diligent in seeking out a proper place for the depositing the fruits of their loves: he points it out to the female, who consents, and takes possession. The spot is generally a thick tuft of rushes, raised and insulated in the middle of the marsh. The female pierces this tuft, deepens it, and moulds it into the shape of a nest, by pressing down the rushes which incumber it. But though the wild Ducks, like other water-fowls, prefer the vicinity of water for breeding*, yet some nests are found pretty remote, among heaths, or in the cultivated fields on the cocks of straw gathered by the labourer, or even in the forests on mutilated oaks, and in old forsaken nests†. Each nest contains

* Aristotle, *lib. vi. 7.*

† The wild Duck is very cunning; she does not always make her nest by the edge of water, nor even on the ground; they are often found in the middle of heaths, at the distance of a quarter of a league from the water: they have been known to lay in the nests of magpies and crows, on very lofty trees. *Salerno.*

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usually from ten to fifteen eggs, and sometimes eighteen : their albumen is greenish, and their yolk red *. It is remarked that the old Ducks lay more, and begin earlier, than the young ones.

Every time the female rises from her eggs, even for a short interval, she covers them with the down that she pulls from her body to clothe her nest. She never descends upon them from the wing, but alights an hundred paces beyond the spot, and walks to it warily, observing whether any foes be nigh ; but when once she is seated on the eggs, the approach even of a man will not flush her.

The male seems to take no share in covering the eggs ; only he keeps at a short distance, and accompanies the female when she goes in search of food, and protects her from the importunities of other males. The incubation lasts thirty days : all the young are hatched in one day ; and on the succeeding the mother descends from the nest, and calls them to the water. Timorous or chilly, they hesitate to enter, and some even retire ; but the boldest plunges after its mother, and the rest soon follow. When they have once quitted their nest, they return no more. If it is situated far from the water, or too elevated, the father † and the mother ‡ take them in the bill,

* Belon.

† According to M. Hebert.

‡ According to M. Lottinger.

and transport them one after another *. In the evening, the mother gathers them together, and withdraws them among the reeds, where she cherishes them under her wings during the night. All day they watch, on the surface of the water and on the grassy mead, for gnats, which are their first food. They are seen to dive, to swim, and to make a thousand evolutions on the water, with equal quickness and facility.

Nature, while she early invigorates the muscles necessary for swimming, seems to neglect for some time the formation, or at least the growth of their wings: these continue near six weeks short and mishapen. The duckling has acquired half its size, is feathered under the belly and along the back, before the quills of the wings begin to appear; and it can hardly attempt to fly till three months. In this state it is called *ballebran* in French, a name derived apparently from the German *balber-ente*, or half-duck †: and as these *ballebrans* are unable to fly, they afford an easy and successful sport on the pools and marshes that are stocked with them ‡. Probably

* This was known to Belon.

† This appellation was given as early as the time of Aldrovandus.

‡ "I shall here describe what a gentleman of my acquaintance practised on a marsh, between Laon and Notre Dame de Liesse. "The bottom of this marsh is vitrifiable sand, which is never miry. "In the months of June and July, the water does not reach above the waist in the deepest parts, where grows a sort of low reeds,

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bly these grown ducklings are the same which the Laplanders fell with sticks on their lakes*.

The same species of wild Ducks which visit us in winter, and inhabit the northern regions of our continent in summer, occurs in the corresponding regions of the new world †; their migrations,

“not close, yet affording a proper retreat to the young *ballebrans*. This gentleman, clothed with a simple linen vest, went into this marsh, accompanied with his game-keeper and a domestic servant: he had caused the reeds to be cut into very long strips, seven or eight feet wide, like alleys in a forest, or trenches in a marsh. He kept along these openings, while his people were beating the marsh; and when they lighted on some troops of *ballebrans*, they gave him notice. The *ballebrans* are not able to fly until the 15th of August; they fled swimming, and the people pursued, killing some in their progress; the rest were forced to cross the alleys made in the reeds; it was in this passage that the expert fowler killed them at his ease: those which escaped were made to re-pass, and another discharge was made, always profitable; the more so, as these *ballebrans* or young ducks are excellent eating.” *Extract of the Memoir communicated by M. Hebert.*

* “The use of sticks for hunting with is unknown in our temperate climates; here (in Lapland) in the extraordinary abundance of game, they use indifferently sticks or whips. The birds which we took in greatest numbers were Ducks and divers, and we admired the dexterity of our Laplanders in killing them: they followed them with their sticks, without seeming to notice them; they approached gradually, and when, being sufficiently near, they saw them swimming in the communication between two pools, they threw a stick at them, which crushed their head against the bottom or the stones, with a promptness that our sight could scarce follow: if the Ducks took flight before they were approached, they brought down several by the stroke of a whip.” *Regnard.*

† At Louisiana the wild Ducks are larger, more delicate, and better tasted, than those of France, but in other respects entirely similar; they are so numerous, that we may reckon a thousand for one of ours. *Dupratz.*—I received this year from Louisiana many

birds

grations, and their autumnal and vernal passages seem to observe the same order, and to be performed in the same time *: nor need we wonder that birds which prefer the arctic tracts, and which possess vigour of wing, should transport themselves from the boreal parts of the one continent into the other. But we suspect that the Ducks seen by navigators, and found in many of the islands in the South Sea †, are not of the

birds similar to species of the same genus, which occur in France and in the various parts of Europe, and particularly a Duck exactly like our wild Duck; it had no difference in the plumage, and only seemed to be rather larger. The inhabitants have themselves perceived such a resemblance between this Duck and that of Europe, as to have named it the French Duck. *Dr. Mauduit*.—*Metzanaubili*, or Moon Duck, is a sort of Duck like the domestic one, and variegated with the same colours; it lives on the Mexican lake. *Fernandez*.—The Canadian Ducks are like those which we have in France. *Leclerc*.

* About the end of April, the Ducks arrive in abundance at Hudson's Bay. *Hist. Gen. des Voy. tom. xiv. p. 657*.—In the very short and piercing days of December, at Hudson's Bay, one kills as many partridges as one chooses: towards the end of April, geese, bustards, Ducks, and many other birds, arrive, and stay about two months. *Lade*.

† Ducks on the coast of Diemen's land, in the 43d degree of latitude. *Cook*.—Wild Ducks at Cape Forward, in Magellan's Strait. *Wallis*.—In the bay of Cape Holland, in the same Strait. *Idem*.—In great plenty at Port Egmont. *Byron*.—At Tanna, a pool contained multitudes of rails and wild Ducks. *Cook*.—In crossing a rivulet on our way (at Otaheite), we saw some Ducks; as soon as they got to the other side, Mr. Banks fired upon them, and killed three at one shot: this incident spread terror among the Indians. *Idem*.—We killed (at Famine Bay, in Magellan's Strait) a great number of birds of different kinds, and particularly geese, Ducks, teals, &c. *Wallis*.—Two great fresh-water lakes (at Tinian) presented a multitude of Ducks and teals, and many whistlers. *Anson's Voyage*.

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common kind; and we apprehend that they belong rather to some of the species hereafter to be described, and which are indeed peculiar to those climates: at least, we should presume that such is the case, till we know more particularly the species of these Ducks which occur in the southern Archipelago. We are certain that those which, at St. Domingo, have the name of wild Ducks, are different from ours *; and from some hints, with regard to the birds of the torrid zone †, we are persuaded that the species of our wild Duck has not penetrated there, unless the tame sort has been introduced ‡. But what-

* What are called *wild Ducks* in St. Domingo differ widely from the true wild Duck of Europe in bulk in plumage, and in taste; nor is the teal the same with that of Europe. *Chevalier Deshayes*.—The wild Ducks of Cayenne are the same with those known in Europe by the name of Barbary Ducks or Muscovy Ducks. *M. Bajou*.

† “ There are in this country (on the coast of Guinea) two sorts of wild Ducks; during the time that I was there I saw only two of the first species . . . They differed not in size or in figure from other Ducks, but their colour was of a very beautiful green, with the bill and legs of a fine red; their colour was so rich and fine, that, if they had been offered to sale alive, I would not have scrupled to have given an hundred franks or more . . . It is about four months since I saw one of the second kind, which had also been killed by some of our people, and which had the same figure with the preceding; its legs and its bill yellow, and its body half green half gray, so that it was far from being so handsome.” *Bosman*.

‡ Tame Ducks were not known on the coast of Guinea till within these few years.” *Bosman*.—The Dutch were conducted to the apartment of the Ducks (in the palace of the king of Tubaon, at Java); they found these to be like those in Holland, except that they were somewhat bigger, and mostly white; their eggs are twice as large as those of our finest hens. *Hist. Gen. des Voy. tom. viii. p. 137.*

ever be the species which inhabit these southern regions, they seem not subject to those migrations, which, in our climates, result from the vicissitude of the seasons *.

In all countries, men have been solicitous to domesticate, to appropriate a species so useful as that of our Duck †; and not only has it become common, but foreign kinds, originally equally wild, have been multiplied, and have produced new tame breeds. For example, that of the Muscovy Duck, from the double profit of its plumage and its flesh, and from the facility of raising it, has grown one of the most useful fowls, and one the most diffused in the new world.

To rear Ducks with profit, and form numerous and prosperous flocks, they require, like the geese, a place near water, and where spacious open banks and turfy strands afford them room to feed, rest, and play. Not but Ducks are often seen confined and kept dry within the inclosure of a court-yard; but this mode of life is not congenial to their nature; they generally pine and degenerate in that state of capti-

* At Tonquin, small houses are built for the Ducks, where they lay their eggs; they are shut up every evening, and let out every morning . . . The number of wild Ducks, of water hens, and of teals, is immense: these birds come to seek their food here in the months of May, of June, and of July, and then they fly only in pairs; but from October to March you will see great flocks together that cover the country, which is low and marshy. *Dampier*.

† Belon.

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vity; their feathers rumple and rot; their feet are hurt on the gravel; their bill shivers with frequent rubbing, all is spoiled and injured, because all is constrained; and Ducks thus raised can neither yield so good a down, nor propagate so strong a race as those which enjoy a part of their native liberty, and live in their proper element. If the place does not naturally afford any current or sheet of water, a pond ought to be dug, in which the ducks may dabble, swim, wash, and dive, exercises absolutely necessary to their vigour, and even their health. The ancients, who bestowed more attention than we on the interesting objects of rural œconomy, and of a country life, those Romans, who with the same hands held the plough * and bore the laurels of victory, have on this head, as on many others, left us useful instructions.

Columella † and Varro dwell with complacency on the subject, and describe at full length the disposition of a yard proper for Ducks. It contains a pond with a small island; the water branches in rills over the turf; bushes intermix their shade: and the whole is laid out in so artful and picturesque a manner, that it might form an ornament to the finest country-house ‡.

The

* *Gaudebat terra vomere laureato & triumphali Aratore.* Plin.

† *Rei Rustic. lib. viii. 15.*

‡ "In the middle a pool is dug . . . whose brink slopes gently
"into the water . . . in the centre rises an islet planted with
"various aquatic shrubbery, which may afford shady retreats for

" the

The water must not be infested with leeches, for these would fix on the feet of the ducklings, and occasion their death. To rid the pool of such pernicious inhabitants, tench or other fish are thrown in to feed on them *. In all situations, whether on the banks of a stream or on the margin of stagnant water, baskets must be placed at intervals with covered tops, and containing a commodious apartment that may invite these birds to nestle. The female lays every two days, and has ten, twelve, or fifteen eggs; she will even produce thirty or forty, if she be abundantly fed, and the eggs repeatedly removed. She is of an ardent nature, and the male is jealous. He usually appropriates two or three females, which he leads, protects, and fecundates. When the Drake is unprovided with these mistresses, his

“ the birds . . . Around, the water spreads without interruption,
 “ that the Ducks may freely play in the warm sun, and spor-
 “ tively contend in swimming . . . The banks are clothed with
 “ herbage . . . In the surrounding walls are cut holes for the
 “ birds nestling in, and these are screened with bushes of box and
 “ myrtle . . . Adjacent, a continued pipe is sunk along the ground,
 “ by which their food, mixed with water, is every day con-
 “ veyed to them; for this kind of birds require their aliments to
 “ be diluted . . . In the month of March, straws and sprigs should
 “ be strewed in the aviary, with which they may build their nests
 “ . . . and he who wishes to form a *nestotrophium* of birds, may ga-
 “ ther the eggs about marshes, and set them under coop-hens; for
 “ the young being thus hatched and educated, will lose their wild
 “ nature . . . but having laid on a lattice-work, let the aviary be co-
 “ vered with nets, to prevent the tame birds from escaping, or the
 “ eagles and hawks from annoying them.”

* Tiburtius, in the Memoirs of Stockholm.

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lust often takes a wrong direction * ; nor is the Duck more reserved in admitting the careffes of strangers †.

The time of incubation is above four weeks ‡; and that time is the same if a hen sit on the eggs. The hen is no less tender to the ducklings than their proper mother : when she first leads them to the brink of water, they fondly recognize their element, and obey the impulse of nature, regardless of the earnest and reiterated calls of their nurse, who remains disconsolate and tormented on the bank ||.

Ducklings are first fed with the seeds of millet or panic, and a little barley may soon be added §. Their natural voracity displays itself

* A Drake of my court having lost his Ducks, took a liking to the hens; he trod several, of which I was witness; those which he had trod could not lay, and it was necessary to perform a sort of Cæsarean operation to extract the eggs, which were set to hatch : but whether from want of care, or from want of fecundation, they produced nothing. *M. de Querboënt.*

† I saw, two years in succession, a Duck pair with a sheldrake, and produce hybrids. *M. Baillon.*

‡ It appears that the Chinese hatch Duck eggs, like those of hens, by means of artificial heat, according to the following notice of Francis Camel : *Anas Domestica ytic Luzoniensibus, cujus ova Sinæ calore fovent & excludunt.* *Philos. Transf. N° 285.*

|| *Super omnia est admiratio anatum ovīs subditis gallinæ, atque exclusis; primò non planè agnoscentis fœtum, mox incertos incubitus sollicitè convocantis; postremo lamenta circa stagnum, mergentibus se pullis, naturâ duce.* *Plin. lib. x. 55.*

§ *Gratissima esca terrestris leguminis, panicum & milium, nec non & hordeum : sed ubi copia est, etiam glans ac vinacea præbeantur. Aquatilibus etiam cibus, si sit facultas, datur cammarus, & rivalis alecula, vel si quæ sunt incrementi parvi fluviorum animalia.* *Columella, De Re Rustica, lib. viii. 15.*

almost

almost at their birth; young or old they are never fated; they swallow whatever they meet with *, whatever is offered; they crop grass, gather seeds, gobble insects, and catch small fish, their body plunged perpendicularly, and only their tail out of the water; they support themselves in this forced attitude more than half a minute, by continually striking with their feet.

They acquire in six months their full size, and all their colours. The Drake is distinguished by a small curl of feathers that rises on the rump †: his head, too, is glossed with a rich emerald green, and his wing decorated with a brilliant spangle. On the middle of the neck there is a white half collar; the fine purple brown of the breast, and the colours on other parts of the body, are disposed in pleasing gradations, and upon the whole form a beautiful plumage.

Yet we must observe, that these choice colours never shew all their vivacity but in the males of the wild kind: they are always duller and more indistinct in the tame Ducks, as the shape is also heavier and less elegant; so that an eye a little accustomed may distinguish between them. In that kind of fowling where tame Ducks search the wild ones, and bring them within aim of the fowler, it is customary to pay the Ducker a price agreed on for each tame Duck killed by

* Aldrovandus.

† Aldrovandus and Belon.

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mistake. But the experienced fowler seldom errs, though the tame Ducks are chosen of the same colour with the wild ones: for not only are the tints more vivid in these, but their feathers are smoother and closer, their neck slenderer, their head finer, the lineaments more delicately traced, and all their motions display the ease, strength, and dignity, which freedom inspires. "When I viewed this picture from my sentry-box," says M. Hebert, ingeniously, "I fancied a skillful painter had delineated the wild Ducks, while the tame Ducks seemed the production of his scholars." The young ones hatched in the house from wild Ducks' eggs, before they discover their fine colours, are already distinguished by their stature and their elegance of form. Nay, the difference is much more perceptible when the wild Duck is brought to our table: its stomach is always rounded, whilst it forms a sensible angle in the tame Duck, which last is surcharged with fat, while the flesh of the former is delicate and juicy. Purveyors know them easily by the legs, of which the scales are finer, equal, and glossy; by the membranes, which are thinner; by the nails, which are sharper and more shining; and by the thighs, which are more slender than in the tame Duck.

The male, in all the water-fowl with a broad bill and palmated feet, is always larger than the female*; contrary to what obtains among the

* Belon had before made this observation.

birds of prey. In the Ducks and teals also, the males are robed with the richest colours, while the females are only of an uniform brown or gray*; and this difference, which is very constant in the wild kinds, remains impressed on the tame breeds, as far at least as the variations and alterations of colour, occasioned by crossing the wild and the tame, have permitted†.

In

* Edwards makes this observation.

† It has been remarked, that in flocks of wild Ducks, there are some different from the rest, and which resemble the tame ones in the shape of their body and the colours of their plumage: this bastard breed proceed from those which the inhabitants near marshes raise every year in great numbers, and of which they always leave a certain proportion on the marshes; their method of rearing them is equally simple and curious.

"The females," says M. Baillon, "are set to hatch in the houses; every place agrees with them, for they are much attached to their eggs; they are allowed twenty-five a-piece: some eggs are also hatched by turkies and hens, and the young immediately distributed to the Ducks.

"On the morning after the birth, each inhabitant marks his own; one cuts the first nail of the right foot, another, the second, another bores a hole in such a part of the skin of the foot, &c. Every person retains his mark; it is perpetuated in his family, and known by the whole village.

"As soon as the ducklings are marked, they are carried with their mothers to the marsh; there they rear themselves, and without trouble; it is only necessary to drive away the ravenous birds, particularly the buzzards, which destroy many. There are persons who thus put seven or eight hundred in the water every year.

"At the end of May and later, the inhabitants assemble to take them again with nets; each knows his own; poulterers come from a distance to buy them: a certain number are always preserved in the marsh, both to serve in winter as a call to the wild ones, and to multiply the species in the spring following; each person

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In fact, like all the other tame birds, the Ducks have undergone the effects of domestication. The colours of their plumage have been diluted, and sometimes even entirely effaced or changed. Some are more or less white, brown, black or mixed; others have assumed ornaments foreign to the species; such as the crested breed; another, still more deformed by domestication, has its bill twisted and bent *. In some, the

"habituates them to return to his house; they are attracted by
"throwing barley to them, of which they are very fond.

"Many of these desert during the rains of October and November, and mix with the wild ones which arrive at this season; they
"pair, and this union produces the bastards, which are distinguish-
"able both by their form and by their plumage . . .

"These bastards have usually their bill longer, their head and
"neck thicker than the wild ones, but slenderer than the tame;
"they are usually stouter, as it happens when breeds are crossed . . .

"I have frequently seen Ducks perfectly white pass with flocks
"of wild ones; these are probably the deserters . . . It is not how-
"ever impossible but this bird may assume the white colour in the
"north; yet I doubt this, because it is migratory: it might turn
"white during the winter, if it remain always, or for a great length
"of time . . . but it departs every year at the beginning of autumn,
"and advancing into the temperate regions, in proportion as the
"cold is felt, it flies from the cause which whitens other birds: the
"more severe the winter, the more numerous are their migrations.
"We saw white Ducks in 1765 and 1775, but they were only as
"one among a thousand.

"It is possible that this colour may be the effect of degeneration,
"as in other animals; for I have seen several white Ducks that
"were impotent: the white females, more common than the males,
"are commonly smaller, weaker, and sometimes less prolific than
"the rest. I have had two barren Ducks in my court-yard, which
"were extremely white, and their eyes red."

* *Anas Aduca.* Linn. and Gmel.

Anas Rostro Incurvo. Briss.

The Hook billed Duck. Ray, Will. and Alb.

constitution is altered, and betrays all the marks of degeneracy ; they are feeble, indolent, inclined to excessive fat, and the young delicate and difficult to raise. Frisch, who makes this observation, says also, that the white Ducks are constantly smaller and weaker than the other sorts. He adds, that when the breed is crossed between individuals of different colours, the young generally resemble the father in the tints of the head, back, and tail ; which happens also in the mixture of a foreign Drake with the common Duck. With respect to Belon's opinion, that the wild kind contains a greater and a smaller breed, I can find no proof of it ; and most probably he was led into that notion by the comparison of individuals of different ages.

Not but the wild kind exhibits some varieties, merely accidental, or derived perhaps from their intercourse on the pools with the tame sort. In fact, Frisch observes, that both intermingle and pair ; M. Hebert remarks, that he often found in the same flock of Ducks reared near great pools some young which resemble the wild, have a savage, independent instinct, and fly away in the autumn *. But what the wild Drake here

* " In the last place, I remarked two of this sort in my court-yard, fed with others of the same age : I told the servants, and gave orders that they should clip the wings ; they neglected to do this, and on a fine day they disappeared, after residing two months in this little court, where they wanted nothing, and where they could see neither the fields nor the horizon." *Sequel of the notes communicated by M. Baillon.*

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operates with the tame Duck, the tame Drake may operate with the wild Duck, supposing that sometimes she yields to his solicitation: and hence might result those differences in bulk* and in colours †, which has been noticed between some of the wild kind ‡.

All of them, wild as well as tame, are subject to an almost sudden moulting, in which their great feathers drop in a few day and ten in a single night §: indeed all birds with flat bills and palmated feet seem subject to a quick shedding of their plumage ||. This happens to the
males

* Salerne and Ray.

† *The wild black Duck* in Frisch.—We ourselves saw, on the pool of Armainvilliers, of which all the Ducks have the livery of the wild ones, two varieties, the one called *red*, whose flanks are of a fine brown bay; the other was a male, which had not the collar, but instead of it all the lower part of the neck, and the crescent on the breast, of a fine gray.

‡ M. Salerne speaks of a wild Duck entirely white, killed in Sologne; but the bulk which he attributes to it, makes it doubtful whether it really was a Duck. "It was white," he says, "and as white as snow, but what was most striking, it was as large as a middle-sized goose."

§ According to M. Baillon.

|| "I have often observed with astonishment, sheldrakes, brents, and whistlers, rid themselves in two or three days, or even in a single night, of all the feathers of their wings." *Sequel of the notes communicated by M. Baillon.*—In the summer season, the Indian or Muscovy Ducks lose entirely all their feathers; they are obliged to remain in the water and among the mangroves, where they run a risk of being devoured by serpents, alligators, quachis, and other ravenous animals. The Indians go to hunt them at this time in the places where they know that they are numerous; they return

males after pairing, and to the females after hatching; it appears to be occasioned by the waste of strength in the amours, and in the laying and incubation. "I have often observed at the time of moulting," says M. Baillon, "that they were restless for some days previous, and seemed to be tormented with great itchings. They concealed themselves to cast their feathers. Next day and the following ones these birds were dispirited and bashful: they seemed conscious of their feebleness, dared not to spread their wings, and when pursued they seemed to have forgotten the use of them. This time of dejection lasted thirty days for the Ducks, and forty for the barnacles and geese. Their cheerfulness was restored with their feathers, and then they bathed much, and began to flutter. More than once I lost them for not having noticed the time when they essayed to fly: they disappeared during the night: I heard them attempting the moment before; but I avoided appearing, because they would all have taken flight."

The interior organization of the Ducks and geese exhibits some peculiarities. The *trachea arteria*, before it divides to enter the lungs, di-

with their canoes loaded with these Ducks: I found five or six in a creek which had no feathers in their wings; I killed one, the rest escaped among the mangroves. *Memoir sent from Cayenne, by M. de la Borde, king's physician in that colony.*

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lates into a sort of bony and cartilaginous vessel, which is properly a second *larynx*, placed below the *trachea* *, and which serves perhaps as an air-magazine while the bird dives †, and gives undoubtedly to its voice that loud and raucous resonance which characterizes its cry. The ancients had a particular word to denote the voice of Ducks ‡; and the silent, reserved Pythagoras advised that they should be kept remote from the habitation of his sage, who was to be absorbed in meditation §. But every man, philosopher or not, who is fond of the country, must be pleased with what constitutes its greatest charm, that is, the motion, life, and noise of nature, the singing of birds, the cries of fowls, varied by the frequent and loud *kankan* of Ducks; it cheers and animates the rural abode; it is the clarion and trumpet among the flutes and hautbois; it is the music of the rustic regiment.

And it is the females, as in a well-known species, that are the most noisy and the most loquacious: their voice is higher, stronger, more susceptible of inflexions than that of the male, which is monotonous and always hoarse. It

* Hist. de l'Acad. tom. ii. p. 48.—Mem. 1700, p. 496.

† Willughby and Aldrovandus.

‡ *Anates tetraire*. Ant. Philomel.

§ Gesner.

has been remarked, that the female does not scrape the ground like the hen, yet scrapes in shallow water to lay bare the roots, or disentangle insects or shell-fish.

Both sexes have two long *caca*. The male organ of generation is twisted into a spiral form*.

The bill of the Duck, like that of the swan, and of the several kinds of geese, is broad, thick, indented at the edges, clothed within with a sort of fleshy palate, filled with a thick tongue, and terminated at its point by a horny nail, of a harder substance than the rest of the bill. The tail in all these birds is very short, the legs placed much back, and almost concealed in the abdomen. From this position of the legs, proceeds the difficulty of walking and of keeping their equilibrium on land, which occasions aukward motions, a tottering step, a heavy air which passes for stupidity, whereas the facility of their evolutions in the water evinces the force, the delicacy, and even the subtlety of their instinct†.

The

* In certain moments it is pretty long and pendulous, which has led country people to think that the bird, having swallowed an adder, this hangs out at the anus.—See *Frisch*.

† “ We had a very tame ferret, which, for its gentleness, was
“ caressed by all our ladies; it was most of its time on their knees.
“ One day when we were in the saloon, a servant entered, holding
“ in his hand a tame Duck, which he let loose on the floor; the
“ ferret immediately darted after the Duck, which no sooner per-

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The flesh of the Duck is said to be heating and of difficult digestion * ; yet it is much used, and the flesh of the wild Duck is finer and better tasted than that of the tame. The ancients knew this as well as we do, for Apicius gives no less than four different ways of seasoning it. Our modern Apiciuses have not degenerated, and a pie of Amiens Ducks is a dish familiar to all the gluttons of the kingdom.

The fat of the Duck is used in topical remedies; and its blood is said to counteract poi-

"ceived it, than he squatted his whole length; the ferret fell upon him, and sought to bite his neck and head; in an instant the Duck stretched out his body, and feigned death; the ferret then smelled the bird from the head to the feet, and perceiving no signs of life, it left the body, and returned to us: the Duck now seeing his enemy retire, rose gently on his toes, seeking to get upon his feet; but the ferret, surprized at this resurrection, ran and threw him down, and did the same a third time. Several days in succession we amused ourselves by repeating this little spectacle; I cannot sufficiently express the sort of intelligence perceived in the conduct of the Duck; scarcely had he extended his head and his neck on the floor, and had got rid of the ferret, than he began to trail his head in such manner as to be able to examine the proceedings of his enemy; then he raised his head gently and repeatedly, took to his feet and fled swiftly; the ferret returned to the charge, and the Duck played again the same trick." *Extract of a letter written from Coulomiers, by M. Huzier to M. Hebert.*

* *Comedi de ipsâ & calefecit me: dedi calefacto, & incaluit amplius; & rursus refrigerato, & calefecit denuo.* Serapio, *apud Aldrov.*—*Caro multi alimenti; auget sperma & libidinem excitat.* Willughby.—Salerne, after saying "its flesh is little esteemed at our tables," says, two lines after, "its flesh is accounted better than that of the goose."

son, even that of the viper *: this blood was the basis of the famous antidote of Mithridates †. It was indeed believed that the Ducks in Pontus feeding on all the poisonous plants which that country produces, their blood must have the virtue of countervailing the dismal effects of venom. We shall observe by the way, that the denomination *Anas Ponticus* of the ancients refers to no particular species, as some naturalists have supposed, but the common species of wild Duck which frequented the borders of the Pontus Euxinus, as well as other shores.

Naturalists have endeavoured to introduce order, and establish some general and particular divisions in the great family of Ducks. Willughby distributes their numerous species into the *marinæ*, or those which inhabit the sea, and the *fluviatiles* ‡, or those which frequent the rivers and fresh waters. But as most of these species live by turns both on salt and fresh water, and pass indifferently from the one to the other, the division of this author is inexact, and becomes defective in the application; nor are

* Galen.

† Belon.

‡ " Ducks are either *marine* or *fluvatile* . . . the *marine* have " their bills broader, especially the upper mandible, and more " turned up; the tail somewhat long, not sharp, the hind-toe broad, " or enlarged with a membrane: in the *fluvatile*, the bill is " sharper and narrower; the tail sharp; the hind-toe small." *Willughby*.

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the characters which he gives sufficiently constant. We shall therefore arrange them according to the order of their bulk, dividing them first into the *Ducks* and *Teals*; the former comprehending all the species of Ducks which equal or surpass the common sort, the latter including all the small species, whose bulk exceeds not that of the ordinary teal.

[A] Specific character of the Mallard or Wild Duck, *Anas Boschas*: "It is cinereous; the middle feathers of the tail (in the male) curled back; its bill straight; its collar white." Specific character of the Tame Duck, *Anas Domestica*: "It is variegated; the middle feathers of the tail (in the male) curled back; its bill straight."—The quantities of Ducks of various kinds that are caught in the fens of Lincolnshire are prodigious: above thirty thousand have been caught in one season in only ten decoys. The time for taking them is restricted by act of parliament to the space between the end of October and the beginning of February.

The MUSK DUCK.

LE CANARD MUSQUE'. *Buff.*

Anas Moschata. Linn. Gmel. Ray, Briss. &c.

Grosse Cane de Guinée. Belon.

Anas Indica. Gesner and Aldrovandus.

Anas Lybica. Johnst. Charl. Will. &c.

Anas Cairina. Aldrov. Johnst. Charl.

Anas Muscovitica. Charlevoix.

The Muscovy Duck, the Cairo Duck, the Guinea Duck, the Indian Duck. Will. Alb. and Lath. *

THIS Duck is so called, because it exhales a pretty strong odour of musk†. It is much larger than our common Duck, and is even the biggest of all the Ducks known‡: it is two feet long from the point of the bill to the end of the tail. All its plumage is of a brown black, glossed with green on the back, and intersected by a broad white spot on the coverts of the wing. But in the females, according to Aldrovandus,

* In German *Indianischer-entrach*, *Turkisch-ente*: In Italian *Anatre d'India*, *Anatre di Libya*.

† Ray.—“The Indian Duck is peculiar to this country (Louisiana); it has on both sides of its head caruncles of a brighter red than those of the turkey; the flesh of the young ones is very delicate and well-tasted, but that of the old ones smells of musk; they are as tame as those of Europe.” *Dupratz*.

‡ Ray.



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THE MUSCOVY DUCK.

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the fore side of the neck is mixed with some white feathers. Willughby says, that he saw one entirely white; yet as Belon has remarked, the fact is, that sometimes the male, as well as the female, is entirely white, or more or less variegated with white: and this change of the colours into white is pretty frequent in the domesticated breeds. The character, however, that distinguishes the Musk Duck is a broad piece of naked skin, red, and sprinkled with *papillæ*, which covers the cheeks, extends behind the eyes, and swells on the root of the bill into a red caruncle, which Belon compares to a cherry. On the back of the head of the male hangs a bunch of feathers shaped like a crest; this is wanting in the female*, which is also rather smaller, and has not the tubercle on the bill. Both have short thighs and thick legs, the nails large, and that of the inner toe hooked: the upper mandible is marked on the edges with a deep indenting, and terminates in a sharp curved nail.

This large Duck has a hollow voice, so low that it can scarce be heard, except when angry. Scaliger was mistaken in asserting that it is mute. It walks slowly and heavily; yet in the wild state it perches on trees†. Its flesh is good, and even much esteemed in America, where great numbers are raised; which has

* Aldrovandus.

† Marcgrave.

given occasion to its appellation in France, the *Indian Duck*. Yet we are uncertain from what country this bird was introduced among us, since it is not a native of the north *, and the name of *Muscovy Duck* is erroneous. We know only that they first appeared in France in the time of Belon, who termed them *Guinea Ducks*; and at that period, Aldrovandus says, they were brought from Cairo into Europe: and we may learn from Marcgrave, that the species occurs in its wild state in Brazil; for this large Duck is evidently the same with his *wild Duck of the bulk of a goose* †, and also the same with the *ypeca-guacu* of Piso. With respect to the *ipecati-apra* of these two authors, we cannot doubt, from the bare inspection of the figures, that it is a different species, which Brisson ought not to have confounded with this.

According to Piso, this large Duck fattens equally well, whether confined to our farm-yards, or permitted to enjoy freedom on the rivers. It is also recommended by its great fertility; the female lays many eggs, and can hatch at almost every time of the year ‡; the male is very ardent

* Linnæus.

† "It is entirely black, except the beginning of the wings, which is white; the black has however a green cast; on the head is a crest consisting of black feathers, and above the origin of the upper mandible is a wrinkled flesh bump. There is a red skin also round the eyes." *Marcgrave*.

‡ Belon.

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in his amours, and surpasses the rest of his kind by the size of his genital organ*. All females suit his appetite, nor does he despise those of inferior species. He pairs with the common Duck, and the progeny of this union are said to be unprolific, perhaps from prejudice†. We have also been told of the copulation of the Musk Drake with the goose‡: but that intercourse is probably very rare, while the former is common in the French colonies of Cayenne and St. Domingo§; where these large Ducks live and propagate like the others in the state of domestication. Their eggs are quite round; those of the young females are greenish, but in the succeeding hatches they assume a paler colour||. The odour of musk which these birds diffuse pro-

* Belon.

† *Idem.*

‡ "M. de Tilly, an inhabitant of the district of Nippes, a very good observer, and of unimpeached credit, assures me, that he saw at M. Girault's, who lives at *Acul-des-savanes*, birds which proceeded from this copulation, and which partook of both species; but he could not tell me whether these hybrids propagated upon one another, or upon the geese or ducks." *Note sent from St. Domingo, by M. Lefebvre Deshayes.*

§ "At St. Domingo, there are Ducks whose plumage is entirely white, except the head, which is of a very fine red. The Spaniards have carried thither Musk Ducks, which is the only kind they rear, both on account of their bulk, and of the beauty of their plumage: they have several layings in the year; and it is remarked, that the ducklings bred between them and the female Ducks of the island never propagate." *Oviedo and Charlevoix.*

|| Willughby.

ceeds,

ceeds, according to Barrere, from a yellowish liquor secreted by the glands of the rump.

In the wild state, as they are found in the overflowed savannas of Guiana, they nestle on the trunks of rotten trees; and after the young are hatched, the mother takes them one after another by the bill, and throws them into the water *. It appears that the alligators destroy many of them; for seldom do the families of ducklings contain five or six, though the eggs are much more numerous. They feed in the savannas upon the seeds of a sort of grass called *wild rice*; they fly in the morning to these immense overflowed meadows, and return in the evening to the sea. They pass the hottest hours of the day perched on branching trees. They are shy and mistrustful; can scarcely be approached, and are as difficult to shoot as most of the other water-fowl †.

* This fact has been confirmed to me by the savages, who have it in their power to verify such observations. *M. de la Borde*.

† Extract from the journal of an expedition performed by M. de la Borde, into the interior parts of Guiana. *Journal de Physique, du mois de Juin 1773*.

[A] Specific character of the Musk Duck, *Anas Moschata*: "Its face is naked and pimpled."

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The W I G E O N.

LE CANARD SIFFLEUR, ET LE VINGEON,
ou GINGEON. *Buff.* *

Anas Penelope. Linn. Gmel. Gefn. and Aldrov.

Anas Fissularis. Gefn. Aldrov. Johnst. Klein, and Briss.

Anas Clangosa. Barrere.

The Wigcon, Wbewer, or Whim. Will. Alb. Penn. and Lath.

A CLEAR, whistling voice, which may be compared to the shrill notes of a fife, distinguishes this duck from all the rest, whose voice is hoarse and almost croaking †. As it whistles on wing, and very frequently, it is often heard and discovered at a great distance. It flies usually in the evening, or even the night. It has a sprightlier air than the other ducks; it is very nimble, and perpetually in motion. It is smaller than the common duck, and nearly equal to the shoveler. The bill is very short, not larger than that of the golden-eye; it is blue, and its tip is black: the plumage on the top of

* i. e. *The whistling Duck, Vingeon and Gingeon* (both corrupted from the English *Wigeon*). In German *Pfeiff-Ente*, or Fising-Duck. —The *Penelops* of the Greeks seems to have been a kind of Duck; but we cannot decide whether it was a Wigeon or a pochard.

† Salerne and Dampier mistook this voice for the rustling of their wings.

the

the head and neck is of a fine rufous; the crown of the head is whitish; the back is fringed and wreathed delicately with little blackish lines in zig-zags on a white ground; the first coverts form on the wing a large white spot, and the following a little spangle of bronze-green; the under surface of the body is white, but both sides of the breast and the shoulders are of a fine purple rufous: according to M. Baillon, the females are somewhat smaller than the males, and continue always gray *, and do not, like the females of the shovellers, assume, as they grow old, the colours of the males. This observer, equally accurate and attentive, and at the same time very judicious, has communicated to us more facts relating to the water-fowls than are to be found in all the professed naturalists: he has discovered, from a series of observations, that the Wigeon, the pintail, the gadwall, and the shoveler, are hatched gray, and retain that colour till the month of February; so that, at first, the males cannot be distinguished from the females, but in the beginning of March their feathers colour, and nature bestows on them the powers and ornaments suited to the season of love; she afterwards disrobes them of their apparel about the end of July: the males retain little or nothing of their handsome colours;

* " The female is clouded with cinereous, except the breast and the belly, which are white; it has no spot on the wings."
Fauna Suecica.

gray



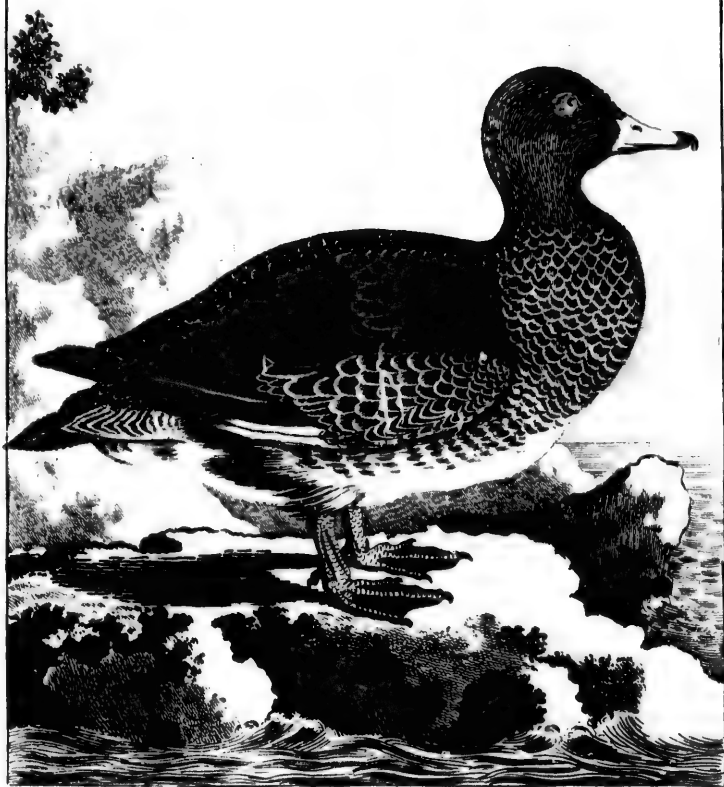
N^o 241



THE COMMON WIGEON, THE MALE.



N^o 242



THE COMMON WIGEON, THE FEMALE.

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gray and dark feathers succeed to those with which they were decorated; their voice dies away and is lost like that of the females, and half the year all seem condemned to silence and insensibility.

It is in this dismal state that these birds commence, in the month of November, their distant voyage, and many are caught in this first passage. It is then scarce possible to distinguish the old from the young, especially those of the pintails; the gray garb being more complete in that species than in others.

When all these birds return into the north, about the end of February or the beginning of March, they are decorated with their finest colours, and are incessantly heard to whistle or scream. The adults now pair, and none remain in our marshes but a few shovelers, which can be observed to lay and hatch.

The Wigeons fly and swim always in bodies*. Every winter a few companies pass in most of our provinces, even those the most distant from the sea, such as Lorraine† and Brie‡; but they

* Schwenckfeld and Klein.

† Observations of M. Lottinger.

‡ "Though I never killed, nor even knew this sort of duck in Brie, I am assured that it appears there at two passages: having seen it very near on the pool in the orangery of the Palais-Royal at Paris, I recollected to have seen on our lakes, though at a distance, ducks with red heads and white faces, which were undoubtedly the same." *Observation of M. Hebert.*

pass in much greater numbers on our coasts, particularly those of Picardy.

"The north and north-east winds," says M. Baillon, "bring to us Wigeons in great flocks. They spread on our marshes, where one part of them spend the winter, another advances farther south.

"These birds fly very well during the night, unless it is quite dark. They seek the same pasture as the wild ducks, and like these feed on the seeds of rushes and other herbs, insects, snails, frogs, and worms. The more violent the wind, the greater the number of these ducks that are seen roving. They keep at a good distance from the sea and the mouths of rivers, notwithstanding the rigour of the weather, and they are very patient of cold.

"They retire regularly about the end of March with the south winds: none remain here: I think they advance to the north, having never seen their eggs or nests. I may observe, however, that these birds are hatched gray, and that prior to the moulting there is no difference, with respect to plumage, between the males and the females: for often on their first arrival I found young ones almost gray, and only half covered with the feathers characteristic of their sex.

"The Wigeon," adds M. Baillon, "is easily reconciled to domestication; it eats readily bread, and barley, and fattens when so fed; " it

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Wigeon
at night,

" it requires much water, in which it incessantly
 " frolics by night as by day. I have had them
 " several times in my yard, and was always de-
 " lighted with their sprightliness."

The species of the Wigeon or whistling duck occurs in America as well as in Europe. We have received several specimens from Louisiana under the name of *jensen duck* and *gray duck* *. They seem to be the same with the *vingeons* or *gingeons* in the French settlements at St. Domingo and Cayenne. They are found in all the intermediate latitudes †: and they have the same natural habits ‡, unless in so far as they are affected by

* I have received from Louisiana a duck which the French settled in that country call the *gray duck*; it corresponds to the European duck which M. Brisson denominates the *whistler duck*. Between the gray duck of Louisiana and the whistler duck of Europe, there are some slight differences; yet not sufficient to discriminate their species: the gray duck is rather larger; it has along the neck on each side a greenish stripe wanting in the whistling duck of Europe: the plumage is the same in both, except a few strokes or shades which may vary in different individuals: but the form of the bill, its colour, the colour of the legs, the shape of the tail, which is pointed, the whole habit of body, and much the greatest part of the plumage, are similar in the gray duck of Louisiana, and in the whistling duck of Europe. I believe, therefore, that I may very safely refer them to the same species. *Extract of the notes communicated by Dr. Mauduit.*

† The whistler ducks are not quite so large as our common ducks; but they differ not from these in their colour or their figure: when they fly they make a sort of whistling with their wings, which is tolerably pleasant; they perch on trees. *Dampier.*

‡ We must except that which Father Dutertre ascribes to the Wigeon of the Antilles, viz. that they leave the rivers and pools at night, and come to dig up the yams in the gardens.

climate; yet we dare not pronounce whether the whistling duck and the *vingeon* be the same species. Our doubts with respect to this and other subjects would have been cleared up, had not the war, among other losses which it has occasioned to natural history, deprived us of a series of coloured drawings of St. Domingo birds, made on that island with the utmost care by the Chevalier Deshayes, correspondent of the king's cabinet. Fortunately a duplicate of the papers of that observer, as ingenious as he is laborious, have come into my hands: and we cannot do better than give an extract, but without venturing to decide whether this bird is precisely the whistling duck.

"The *gingeon*, which at Martinico is termed "the *vingeon*," says the Chevalier Deshayes, "is "a particular kind of duck, which is not disposed to make distant voyages like the wild "duck, but usually limits its excursions to the "passing from one pool or marsh to another, or "to make depredations of some field of rice "near their haunts. It sometimes perches on "trees; but, as far as I could observe, this happened only in the rainy season, when its ordinary retreat during the day was so deluged, "that no aquatic plant appeared to conceal or "shelter it, or when the extreme heat obliged "it to seek the cool shade amidst the thick foliage.

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“ One might be tempted to take the *vingeon*
“ for a nocturnal bird, for it is seldom seen in
“ the day ; but as soon as the sun is set, it rises
“ from among the flags and reeds, and makes
“ for the open sides of the pools, where it
“ dabbles and pastures like other ducks. It
“ would be difficult to say how it is employed
“ through the day : we can hardly observe it
“ without being perceived. But we may pre-
“ sume that, though it lurks among the reeds,
“ it does not pass its time in slumber. We
“ may draw this inference from tame *vingeons*,
“ which, like other fowls, seek not to sleep in
“ the day-time, till after they are fated.

“ The *gingeons* fly in flocks like the ducks,
“ even in the love season. This instinct, which
“ prompts them to associate, seems to be pro-
“ duced by fear ; and it is said, that like the
“ geese, they always plant a sentinel, when en-
“ gaged in search of food. If the guard per-
“ ceives any motion, he gives notice by a parti-
“ cular cry, resembling a cadence or rather a
“ hoarse bleating ; instantly the *gingeons* desist
“ from their gobbling, raise their heads, and
“ look with a steady, earnest aspect : if the noise
“ ceases, they resume their feeding ; but if the
“ signal is redoubled, and announces real danger,
“ the alarm is communicated by a shrill, pierc-
“ ing cry, they all mount and follow the senti-
“ nel, who first takes flight.

“ The *gingeon* is a noisy bird: when a flock
 “ is feeding, a continual murmuring is heard,
 “ like a low smothered laugh. This gabbling
 “ betrays them, and directs the fowler. Even
 “ when they fly, there is always some one of the
 “ body which whistles; and as soon as they have
 “ alighted on the water, their chuckling is re-
 “ newed.

“ They lay in January; and in March the
 “ young are seen. Their nests are nothing re-
 “ markable, except that they contain many
 “ eggs. The negroes are very expert at finding
 “ these nests, and the eggs hatch well if placed
 “ under sitting hens. In this way tame *gin-*
 “ *geons* are obtained; but it would be a world
 “ of difficulty to domesticate such as are taken a
 “ few days after their birth: for already they
 “ have contracted the wild, shy temper of their
 “ parents; while those hatched under hens re-
 “ ceive a part of the social familiar disposition.
 “ The young *gingeons* have more agility and
 “ vivacity than ducklings: at first they are
 “ covered with a brown down; they grow very
 “ fast, and in six weeks they attain their full
 “ size, and the feathers of the wings begin to
 “ sprout*.

“ Thus,

* “ One could not believe to what lengths the wild Wigeons
 “ carry the paternal affection. M. le Gardeur, lately member
 “ of the Chamber of Agriculture at St. Domingo, and who joins
 “ to a very accomplished mind much knowledge in Natural His-

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“ Thus, with very little pains, we may procure tame *gingeons*; but, if we may judge from almost all that have, we can scarcely expect that they will multiply in the domestic state; yet I know some tame *gingeons* which have laid, covered, and hatched.

“ It would be an extremely valuable acquisition to obtain a domestic breed of these birds; because their flesh is excellent, and especially that of such as have been tamed, not having the marsh taste of the wild ones. And another reason for reducing this species to domestication, would be the advantage in extinguishing, or at least of weakening, those in the wild state; for they often desolate our crops, and seldom do the fields of rice, near pools, escape their ravages. In such situations, the sportsman waits for them in the evening by moon-light: they are also caught with nooses, and hooks baited with earth-worms.

“ The *gingeons* feed not only upon rice, but on all other grain usually given to fowls; such as maize and different kinds of millet. They also crop grass, and catch small fish and crabs.

“ Their cry is a real whistle, which may be

“ tory, assured me, that he saw them dart with the utmost rancour, pecking a negro who sought to plunder their brood; they annoyed him so much as to retard the taking of the young, which in the mean time escaped and concealed themselves as much as was possible.” *Sequel of the Memoir of the Chevalier Deshayes.*

“ imitated so exactly with the mouth, as to decoy the flocks when they pass. The sportsmen fail not to counterfeit this whistle, which runs rapidly over all the notes of the octave, from the base to the treble, resting on the last note, which is prolonged.

“ The *gingeon* carries its tail low, and bent to the ground, like the pintado; but on entering the water, it raises its tail. Its back is higher and more arched than that of the duck: its legs are much longer in proportion: its eye is livelier, and its tread firmer: it has a better carriage, and holds its head high like the goose. These characters, together with its habit of perching upon trees*, sufficiently distinguish it. This bird with us has not nearly so thick a plumage as the ducks in cold countries.

“ The *gingeons*,” M. Deshayes continues, far from copulating with the musk or common ducks, as these have done with each other, seem, on the contrary, to be the declared enemies of all poultry, and league together to attack the ducks and geese. They always succeed in routing these, and in obtaining the object of the quarrel, that is, the

* To this species we ought probably to refer the *branch duck*, which occurs in many narratives. “ There are no less than twenty-two kinds of ducks in Canada, of which the most beautiful and the best are called *branch ducks*, because they perch on branches of trees; their plumage is variegated with much brilliancy.” *Hist. Gen. des Voy. tom. xv. p. 227.*

“ grain

“ grain which is thrown to them, or the pool
 “ in which they dabble. It must be owned, that
 “ the disposition of the *gingeon* is mischievous and
 “ quarrelsome; but as its force equals not its
 “ strength, we cannot but wish, though it
 “ should disturb the peace of the court-yard, to
 “ propagate in the domestic state this species of
 “ duck, so superior in quality to all the rest.”

[A] Specific character of the Wigeon, *Anas Penelope*: “ Its tail
 “ is somewhat sharp; its vent black; its head brown; its front white;
 “ its back waved with cinereous.”

The CRESTED WHISTLER.

Anas Rufina. Gmel.

Anas Fistularis Cristata. Briss.

Anas Capite Rufo Major. Ray,

Anas Cristata Flavescens. Marfigli and Klein.

Anas Erythrocephalos. Rzaczynski.

The Great Red-headed Duck. Will.

The Red Crested Duck. Lath. *

THIS whistling duck has a crest, and is as large as the wild duck; all its head is clothed with fine rufous feathers, delicate and silky, raised on the front and the crown of the head in a hairy tuft, resembling the

* In Italian *Capo Rosso Maggiore*, or, *Greater rufous-headed*: in German: *Brandt-ende* (*fire duck*), *Rott-kopf* (*red-head*), *Rott-bals* (*red-throat*).

frizzled

frizzled tete lately worn by our ladies: the cheeks, the throat, and the compass of the neck, are rufous like the head; the rest of the neck, the breast, and the under side of the body, are black or blackish, which on the belly is lightly waved or clouded with gray; some white appears on the flanks and the shoulders, and the back is brown gray; the bill and the iris are of a vermillion colour.

This species, though less common than the preceding, has been seen in our climates by several observers.

[A] Specific character of the *Anas Rufina*: "It is black; its head, and the upper part of its neck, brick-coloured; its top rusty and crested (in the male); its wings white below, and at the margin; its tail dusky."

The WHISTLER WITH RED BILL AND YELLOW NOSTRILS.

Anas Autumnalis. Linn. and Gmel.

Anas Fistularis Americana. Briss.

Anas Fera mento cinnabarino. Marfigli and Klein.

The Red-billed Whistling Duck. Edw. and Lath.

IT is probable that this species, as well as the preceding ones, has received the name of *Whistler* from the whistling of its voice or of its

wings. To the appellation given by Edwards of *red-billed*, we add the circumstance that it has *yellow nostrils*, to distinguish it from the foregoing species, whose bill is also red. This Whistler is tall, but not larger than a coot. Though it has not vivid or brilliant colours, it is a very beautiful bird of its kind: a chestnut brown spread on the back is clouded with flame-colour or deep orange; the lower part of the neck has the same tint, which melts into gray on the breast; the coverts of the wings are washed with rusty on the shoulders, next assume an ash hue, then a pure white; its quills are blackish brown, and the primaries are marked on the middle of their outer surface with white; the belly and tail are black; the head is covered with a rusty cap, which stretches with a long blackish track to the top of the neck; all the circumference of the face and neck is clothed with gray feathers.

This species is found in North America, according to Brisson; yet we received it from Cayenne.

[A] Specific character of the *Anas Autumnalis*: "It is gray; its wing-quills, its tail, and its belly, are black; there is a fulvous and white spangle on the wings."

The BLACK-BILLED WHISTLER.

Anas Arborea. Linn. and Gmel.

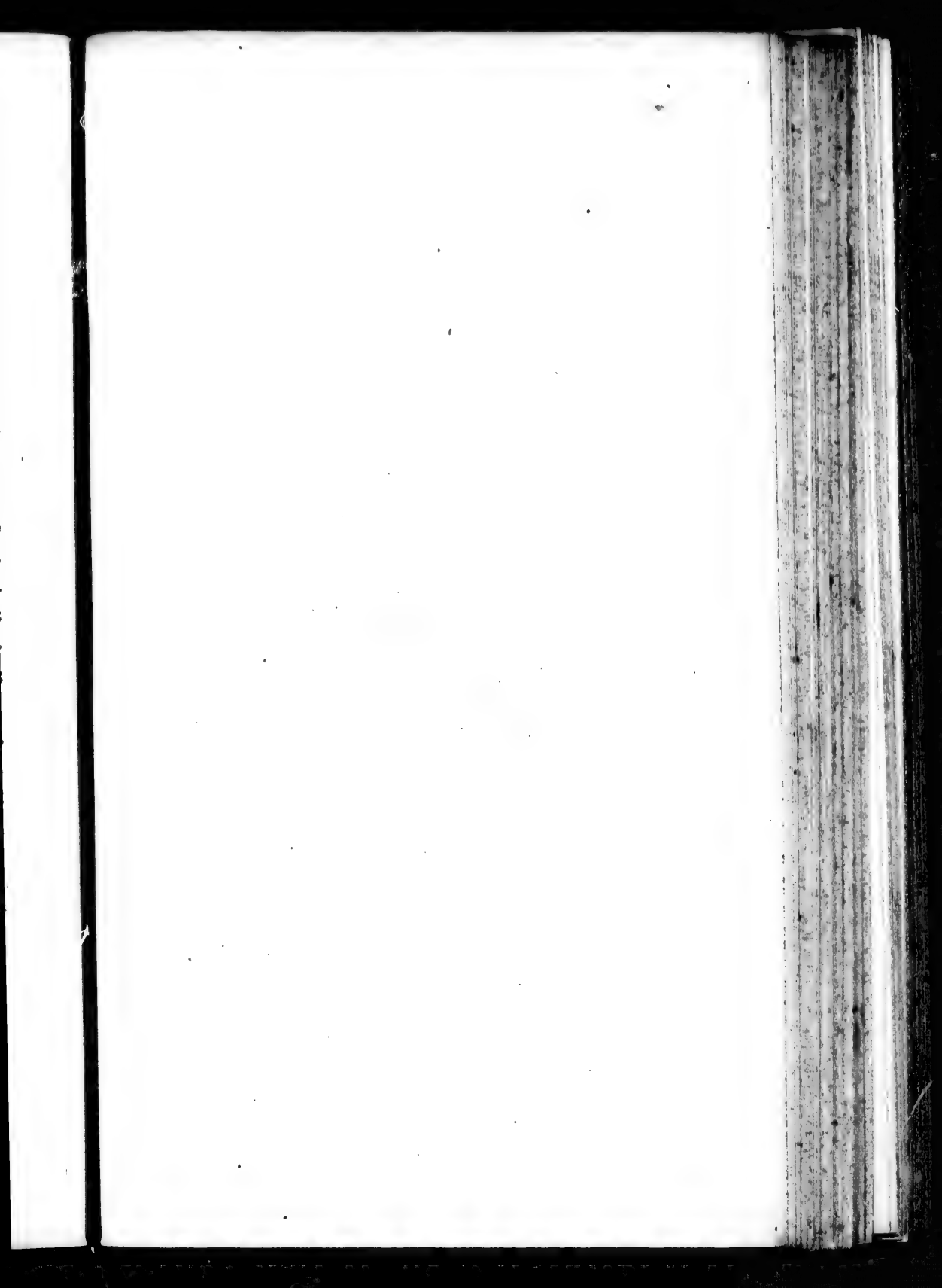
Anas Fistularis Jamaicensis. Briss.

Anas Fistularis Arboribus insidens. Sloane.

WE adopt the name given by Edwards, as more precise than any indication drawn from climate. The legs and neck appear proportionally longer than in the other ducks: its bill is black or blackish; its plumage is brown, clouded with rusty waves; its neck is speckled with little white streaks; the front, and the sides of the head behind the eyes, are tinged with rufous; and the black feathers on the top of the head recline like a crest.

According to Sir Hans Sloane, this duck, which is seen frequently in Jamaica, perches and makes a sort of whistling. Barrere says, that it is a bird of passage in Guiana; that it feeds in the savannas, and is excellent meat.

[B] Specific character of the *Anas Arborea*: "It is brown; its head somewhat crested; its belly spotted with white and black."





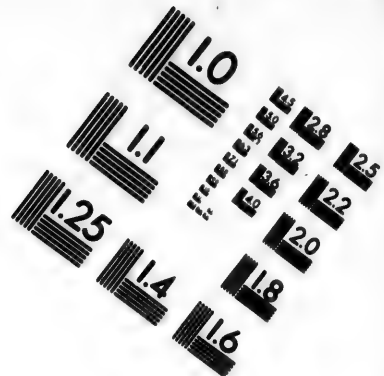
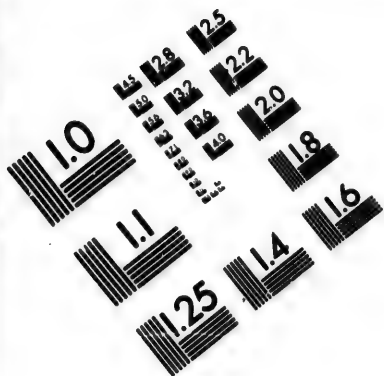
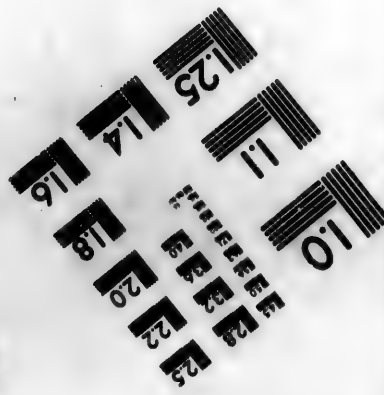
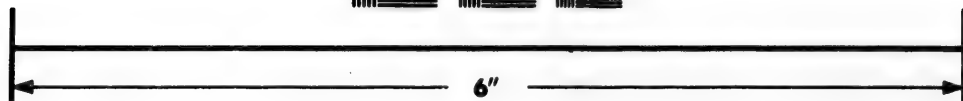
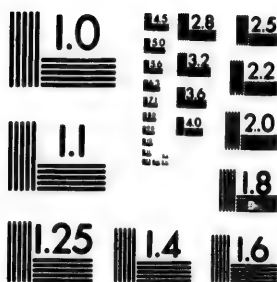


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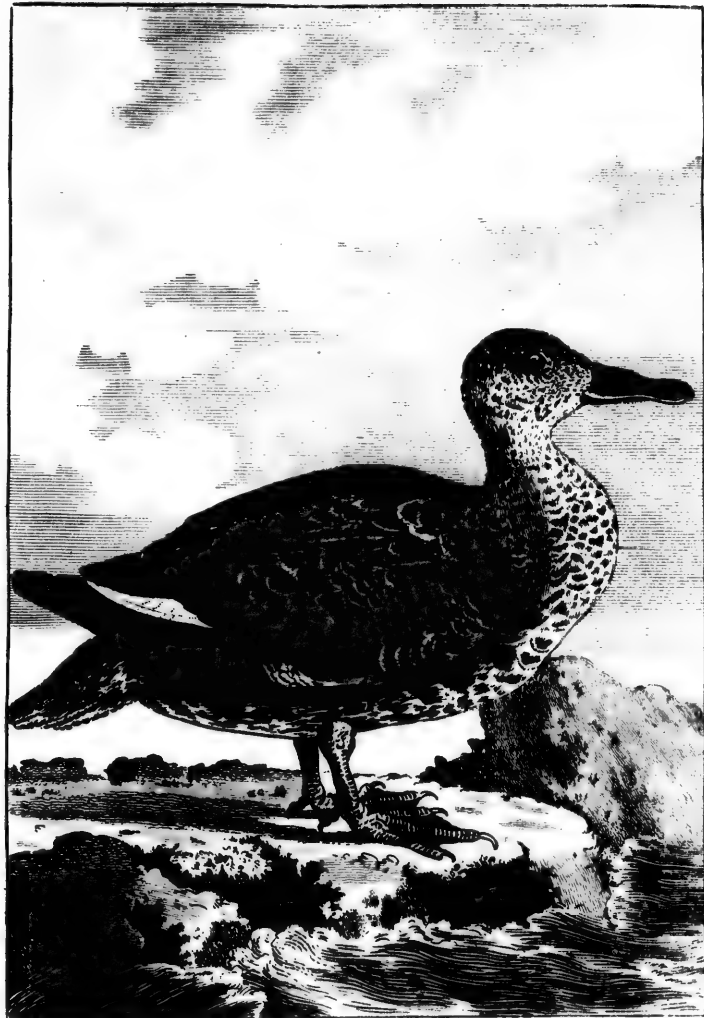
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N.º 243



THE GAD-WALL DUCK, THE FEMALE.

The G A D W A L L.

LE CHIPEAU, ou LE RIDENNE. *Buff.*

Anas Strepera. Linn. Gmel. Gesn. and Klein.

Anas Platyrinchos rostrum nigro & plano. Aldrov. Johnst. and Ray.

The Gadwall, or Gray. Will. Penn. and Lath. *

THIS is not so large as the wild duck; its head is finely speckled or dotted with dark brown and white, and the blackish tint predominates on the top of the head and the upper side of the neck; the breast is richly festooned or scaled, and the back and the flanks are all vermiculated with these two colours; on the wing there are three spots or bars, the one white, the other black, and the third of a fine reddish chesnut. M. Baillon has observed, that of all the ducks, the Gadwall preserves the longest the fine colours of its plumage, but at last, like the others, it assumes a gray garb after the love season. The cry of this duck resembles much that of the wild duck; nor is it more raucous or louder, though Gesner seems to have meant to characterize it by applying the epithet *strepera*; which has been adopted by ornithologists.

* In German *Schnarr-endte*, *Schnatter-endte*, or, *snarling or chattering duck*; sometimes *Leiner*.

The

The Gadwall is as alert in diving as in swimming, and it escapes a shot by plunging under water; it seems timorous, and flies little during the day; it lurks squatted among the rushes, and seeks not its food except early in the morning or in the evening, and even a good while after night has come on. They are then heard flying in company with the whistlers, and, like these, are caught by the decoy of tame ducks. "The Gadwalls," says M. Baillon, "arrive on our coasts of Picardy in the month of November, with the north-east winds; and when these winds blow some days, they pass on without halting. About the end of February, with the first south winds, they are seen repassing on their return to the north."

"The male is always larger and more beautiful than the female; like the male pochards and whistlers, it has the under side of the tail black, which part of the plumage is in the females constantly gray."

"The females bear great resemblance in all these species; yet some practice will enable us to distinguish them. The female Gadwalls become of an intense rufous as they grow old."

"The bill of this bird is black; its legs are of a pale clay-yellow, with black membranes, and the under side of each joint of the toes is also black. The male measures twenty inches from the bill to the tail, and nineteen inches
" to

“ to the extremity of the nails ; its alar extent
“ is thirty inches. The female differs only fif-
“ teen lines in all the dimensions.

“ I fed in my court several months,” conti-
nues Baillon, “ two Gadwalls, male and female:
“ they would eat no grain, but subsisted on
“ bran and soaked bread. I had also wild ducks
“ which refused grain, and others which lived
“ on barley from the first days of their confine-
“ ment. This difference, I imagine, is owing
“ to the nature of the places where these birds
“ were bred: those which come from the de-
“ sert marshes of the north must be unac-
“ quainted with barley and wheat, and therefore
“ it is not surprising that they should reject such
“ food: those, on the contrary, which were
“ hatched in cultivated countries, are led in the
“ night into the corn-fields by their parents;
“ they are thus accustomed to live on grain,
“ and readily recognize it in the farm-yard;
“ while the others will often die of want, though
“ the rest of the poultry, picking up the seeds
“ before them, might instruct them in the use
“ of this food.”

[A] Specific character of the Gadwall, *Anas strepera*: “ It has
“ on its wing a speckle of rufous, of black, and of white.”

The S H O V E L E R.

LE SOUCHET, ou LE ROUGE. *Buff.*

Anas Clypeata. Linn. Gmel. and Briss.

Anas Latirostra Major. Gefner and Aldrov.

Anas Latirostra. Schwenckf. and Klein.

Anas Platyrhynchos Altera (male). Ray and Will.

Anas Platyrhynchos (female). Ray and Will.

Anas Virescens. Marfig.

Phasianus Marinus. Charleton.

The Blue-winged Shoveler (fem.) Catesby.

THIS duck is remarkable for its short bill *, round and spread at the end, like a spoon; whence are derived its various names. It is rather smaller than the wild duck; its plumage is rich in colours, and seems to merit the epithet *very beautiful*, which Ray bestows on it. The head and the upper half of the neck are of a fine green; the coverts of the wing, near the shoulder, are of a pale blue, the following are white, and the last form on the wing a bronze green spangle: the same colours mark, though more faintly, the wing of the female, which has besides only the dull colours of a

* In German *Breit-schnabel* (broad-bill), *Schall-endle* (*shell-duck*): in Danish *Krop-and*: in Norwegian *Stock-and*: in Greenland it is called *Kertlutock*; which signifies *broad-bill*.

white

white gray, and rusty, mailed and festooned with blackish; the breast and the under side of the neck of the male are white, and all the under surface of the body is of a fine rufous; yet sometimes the belly is white. M. Baillon assures us, that the old Shovelers retain sometimes their beautiful colours, and that tinged feathers grow at the same time with the gray, which cover them every year after the love season: and he observes justly, that this singularity of the Shovelers and gadwalls may mislead nomenclators with respect to the number of the species of these birds. He says also, that aged females, which he saw, had, like the males, colours on their wings, but that, during their first year, they were entirely gray. Their head retains always its colour. We shall here also give the excellent remarks which he has obligingly communicated on the Shoveler in particular.

“The form of the bill of this beautiful bird,” says M. Baillon, “denotes its manner of living; “its two broad mandibles have edges furnished with a sort of indenting or fringe, that “allows only the dirt to escape, but holds the “worms, the slender insects, and the crustaceous animals, which it searches among the “mud by the margin of water: it has no other “food *. I have several times opened them at

* We must add flies, which it catches alertly as it flutters on the water; whence the name *Anas Muscaria*, which Gesner has given to it.

“ the end of winter and during frost; I found
“ no herbage in their stomach, though the want
“ of insects must have obliged them to recur to
“ that species of food. They are found then
“ near springs only: they grow very lean:
“ they recruit again in the spring, by eating
“ frogs.

“ The Shoveler dabbles incessantly, chiefly
“ in the morning and evening, and even very
“ late at night: I think that it feeds in the
“ dusk. It is savage and gloomy: it can scarce
“ be reconciled to domestication: it constantly
“ rejects bread and grain. I had a great num-
“ ber, which died after having been long fed by
“ cramming into the bill, without ever learning
“ to eat by themselves. I have at present two
“ in my garden, which I have fed in that way
“ more than a fortnight. They are now living
“ on bread and shrimps: they sleep almost the
“ whole day, and lie squat by the box-borders:
“ in the evening, they run about a great deal,
“ and they bathe repeatedly in the night. It is a
“ pity that so beautiful a bird has not the cheer-
“ fulness of the garganey or sheldrake, and
“ cannot become an inhabitant of our court-
“ yards.

“ The Shovelers arrive in our districts about
“ the month of February. They disperse in the
“ marshes, and a part of them hatch there every
“ year. I presume that the rest advance towards
“ the south, because these birds become rare here.

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“ after the first northerly winds that blow in
“ March. Those which are bred in the coun-
“ try, depart about the month of September :
“ it is very uncommon that any are seen in the
“ winter, and I thence conjecture that they
“ avoid the approach of cold *.

“ They nestle here in the same places with
“ the summer teals; they choose, like these,
“ large tufts of rushes in spots almost inaccessi-
“ ble, and they arrange their nest after the same
“ fashion. The female lays ten or twelve eggs,
“ of a somewhat pale rufous: she covers them
“ twenty-eight or thirty days, as sportsmen
“ have told me; but I am myself inclined to
“ think, that the incubation lasts only twenty-
“ four or twenty-five days, since these birds
“ hold a middle rank between the ducks and
“ the garganeys, with respect to size.

“ The young are hatched with a gray spotted
“ down, like the ducklings, and are extremely
“ ugly. Their bill is then almost as broad as
“ their body, whose weight seems to oppress
“ them: they almost constantly rest on their
“ breast. They run and swim as soon as they
“ burst from the shell. Their parents lead them,
“ and appear attached to them; they incessantly
“ guard against the ravenous birds: on the least
“ apprehension of danger, the family squat
“ among the grass, and the parents throw them-

* However, they are seen in Scania and Gothland, according to
Linnaeus.

" selves into the water, and plunge over head.

" The young Shovelers become first gray like the females: the first moulting gives them their fine feathers, but they turn bright not until the second."

With respect to the colour of the bill, observers are not agreed. Ray says, that it is quite black; Gesner, as cited by Aldrovandus, asserts, that the upper mandible is yellow; Aldrovandus makes it to be brown: all that we can infer is, that the colour of the bill varies from age or other circumstances.

Schwenckfeld compares the clapping of the Shoveler's wings to the clattering of castanets; and M. Hebert told us, that he could not better compare its cry, than to the creaking of a hand-rattle, turned round with little shakes. It is likely that Schwenckfeld mistook its voice for the noise of its flight. The Shoveler is the best and most delicate of the ducks; it grows very fat in winter; its flesh is tender and juicy; this is said to be always red, though well dressed, and that the bird has hence received the name of *rouge*, particularly in Picardy, where many are killed in the long chain of marshes that extend from the vicinity of Soissons to the sea.

Briffon, following the other ornithologists, gives a variety of the Shoveler; but the only difference is, that its belly, instead of being chestnut rufous, is white.

The

The *yacapatlaboac* * of Fernandez, a duck which that naturalist characterises by its remarkable broad bill, and by the three contrasted colours of its wings, appears to be a Shoveler: and we shall class with it the *tempatlaboac* of the same author, which Brisson makes his *Mexican wild duck* †: for Nieremberg terms it *avis latirostra*, or *broad-bill*; and Fernandez takes care to remark, that many persons call the *yacapatlaboac* by the same name, *tempatlaboac*. Our opinion is corroborated by the observations of Dr. Mauduit, which leave no doubt that the Shoveler is found in America. "The individuals of this species," says he, "are liable in Europe to variations of plumage, and some have a mixture of gray feathers, which occur not in the others. I remarked, in seven or eight Shovelers sent from Louisiana, the same diversity that might be found in an equal number of birds killed at random in Europe; which

* *Anas Mexicana*. Gmel.

Anas Clypeata Mexicana. Brisson.

The Mexican Shoveler. Lath.

—"It is a kind of wild duck, having its bill long and broad, especially at the extremity . . . its wings partly white, partly glossy, and brown green . . . The Spaniards call it the royal duck; and some also give it the name of *tempatlaboac*." Fernandez.

† *Anas Clypeata*, 3 var. Linn. and Gmel.

Boschas Mexicana. Brisson.

The Broad-billed Bird. Will.

—"The broad-billed bird . . . a kind of wild duck . . . its wings first sky-blue, then bright white, and afterwards shining with a green lustre, and their tips on either side fulvous." Fernandez.

" proves that the Shoveler of Europe and that
" of America are absolutely the same species *,"

* Note communicated by M. Manduit.

[A] Specific character of the Shoveler, *Anas Clypeata*: " The
" end of its bill is dilated and rounded; its nail curved inwards."

The P I N T A I L.

LE PILET, ou CANARD A' LONGUE QUEUE,
Buff*.

Anas Acuta, Linn. and Gmel.

Anas Longicauda. Briss.

Anas Caudacuta. Gefn. Aldr. Johnst. Will. Klein, &c.

Tzitzikiboa. Fernandez.

The Sea-Pheasant, or Cracker. Will. and Alb. †.

THIS is excellent game, and a very beautiful
bird. Though it has not the resplendent
colours of the shoveler, its plumage is very hand-
some, of a light gray, waved with little black
streaks, which might be said to be traced with
a pencil: the great coverts of the wings are
marked with broad stripes of jet-black and

* i. e. *The Long-tailed Duck*,

† At Rome this duck is called *Coda Lancea*, or *lance-tailed*: in
German it has the names of *Faisan-ente*, *Meer-ente*, *See-vogel* (*phea-
sant-duck*, *sea-duck*, *sea-bird*), and in some places *Spitz-schwanz*
(*pointed-tail*): in Swedish *Ala*, *Aler*, *Abl-fogel*.

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THE PINTAIL WIGEON.

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snowy-white; on the sides of the neck are two white bars like ribbands, which readily distinguish it, though at a distance. The proportions of its body are longer and more taper than in any other species of duck; the neck is remarkably long, and very slender; the head is small and chestnut-colour; the tail is black and white, and terminates in two narrow filaments, which might be compared to those of the swallow; it is not carried horizontally but half-cocked. Its flesh is in every respect preferable to that of the wild duck; it is not so black, and the thigh, which in the wild duck is commonly hard and tendinous, is as tender as the wing in the Pintail.

“The Pintail,” M. Hebert tells us, “is seen in Brie during both passages: it lives on the large pools: its cry is heard pretty far off, *bi zouë zouë*; the first syllable is a sharp whistle, the second a murmur, deeper, and less sonorous.”

“The Pintail,” adds this excellent observer, “seems to form the shade between the ducks and the garganeys, and, in many respects, it approaches the latter: the distribution of its colours resembles more that in the garganey, and it has also the bill of that bird.”

The female differs from the male as much as the wild duck differs from the drake. Like the male, it has its tail long and pointed, and might otherwise be confounded with the wild duck; but the length of its tail is sufficient alone to

distinguish it from all the other ducks. The two filaments which project from the tail, have given occasion to the German name, *pheasant-duck*, and the English, *sea-pheasant*, which are very improperly applied. The appellation of *winter-duck*, which it receives in the north, seems to prove that it bears the most intense cold; and, in fact, Linnæus assures us that it is seen in Sweden in the depth of winter*. The species seems to be common to both continents: for it is evidently the Mexican *tzitziboa* of Fernandez; and Dr. Mauduit received one from Louisiana, under the name of *pintailed duck* (*cannard paille-en-queue*). Thus, though a native of the north, it advances into the hot climates.

* *Fauna Suecica,*

[A] Specific character of the Pintail, *Anas Acuta*: "Its tail is sharpened and elongated, black below; there is a white line on either side behind the head; its back is cinereous and waved." Great flocks of these ducks visit the Orkneys in winter; also the west of Ireland in the month of February, and are there reckoned delicate food.

The LONG-TAILED DUCK from NEWFOUNDLAND.

Anas Glacialis. Linn. and Gmel.

Anas Longicauda ex insula N. Terræ. Briss.

The Swallow-tailed Sheldrake. Ray and Will.

THIS Duck is very different from the preceding in its plumage, and has no resemblance to it, except in the long shafts that project from its tail.

The coloured figure of Edwards represents those parts brown, which in the duck called *Miclon* are black in our *Planches Enlumonnées*; yet we may perceive that both these birds are the same, by the two long shafts which project from the tail, and by the fine disposition of the colours: white covers the head and the neck as far as the top of the breast and back; there is only a band of orange fulvous, which descends from the eyes on both sides of the neck; the belly, and also two bunches of long, narrow feathers, lying between the back and the wing, are of the same white with the head and the neck; the rest of the plumage is black as well as the bill; the legs are of a blackish red, and a small edging of membrane may be observed running
along

along the margin of the inner toe, and below the little hind-toe : the length of the two shafts of the tail increases the total bulk of this duck ; yet it is scarce equal to a common duck.

Mr. Edwards suspects, with every probability, that his *long-tailed duck from Hudson's Bay* is the female of this. The size, the figure, and even the plumage, are nearly the same ; only the back of the latter is less variegated with white and black, and the plumage is on the whole browner.

This subject, which appears to be a female, was caught at Hudson's Bay, and the other was killed in Newfoundland ; and as the same species is recognized in the *bavelda* of the Icelanders and of Wormius, we may conclude that, like many others of the genus, it is an inhabitant of the remotest countries of the north. It occurs also in the north-east of Asia ; for it is the *sawki* of the Kamtschadales, which they also name *kiangitch* or *aangitch*, that is, *deacon* *, because they find that this duck sings like a Russian deacon.—So it seems that a Russian deacon sings like a duck !

* Hist. Gen. des Voy. tom. xix. pp. 273 & 355.

[A] Specific character of the Long-tailed Duck, *Anas Glacialis*: " Its tail is sharpened and elongated ; its body black, and below " white." It breeds in the remotest parts of the north, and visits our shores only in the severest winters:

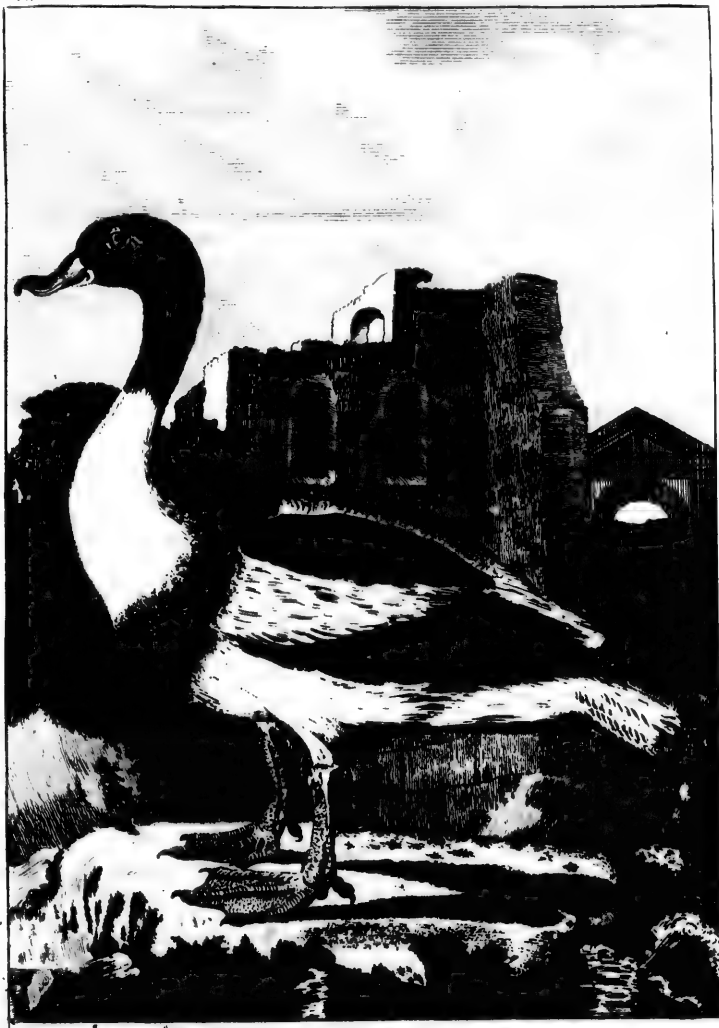
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THE SHELDRAKE.

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The S H E L D R A K E.

LE TADORNE. *Buff.**Anas Tadorna.* Linn. and Gmel.*Vulpanfer.* Gefner, Aldrov. and Klein.*Anas Maritima.* Gefner, and Aldrov.*Tadorna.* Johnst. Sibbald, Ray, and Briss.*The Sheldrake, or Burrough-duck.* Will. Alb. &c. *

WE are convinced that the *fox-goose* of the ancients (*χηνάλωπηξ*, or *vulpanfer*) is the same with the Sheldrake. Belon has hesitated and even varied about the application of these names: in *his observations*, he refers them to the goofander, and in his book *of the nature of birds*, he appropriates them to the barnacle. But we may easily ascertain, from one of those natural properties which are more decisive than all the conjectures of erudition, that these names apply solely to the Sheldrake; for it is the only bird which resembles the fox in a singular circumstance, that of lodging in a hole: it usually invades and possesses itself of the rabbits' burrows, and there it lays and breeds.

* In Greek *Χηνάλωπηξ*, from *χην*, a *goose*, and *άλωπηξ*, a *fox*: in Latin *Vulpanfer*, which is only a translation of the preceding; and also *Anas Strepera*: in German *Berg-enten* (*mountain-duck*), *Fuchs-gans* (*fox-goose*); in Swedish *Fu-geas*.

Ælian

Ælian ascribes also to the *vulpanfer* the instinct of presenting itself, like the partridge, before the feet of the sportsman, to avert the danger from its young. This was the general opinion of the ancients; since the Egyptians, who ranked this bird among the sacred animals, figured it, in their hieroglyphics, as the emblem of the generous tenderness of a mother *. In fact, it will be seen from our observations, that the Sheldrake exhibits precisely the same marks of maternal affection.

The appellations bestowed on this bird in the north, that of *fox-goose*, or rather *fox-duck* in Germany, that of *mountain-duck* in Saxony, and that of *burrow-duck* in England, mark, equally with the ancient names, its singular habit of living in burrows the whole time of its incubation. These appellations are even more accurate; since the Sheldrake belongs to the genus of ducks, not to that of geese. It is rather larger than the common duck, and its legs are somewhat taller; but in other respects, in its figure, its port, and its structure, it preserves the resemblance. It differs from the duck, only because its bill is more raised, and the colours of its plumage more vivid and beautiful, and appear more brilliant at a distance. Its fine plumage is broken into large spaces of three colours, white, black, and cinnamon-yellow:

* *Vid. Pieri, in Orum, lib. xx.*

the head, and as far as the middle of the neck, are black, glossed with green; the lower part of the neck is encircled by a white collar, and below is a broad zone of cinnamon-yellow, which covers the breast, and forms a little band on the back; this same colour tinges the lower belly; below the wing, on each side of the back, a black bar extends on a white ground; the great and middle quills of the wing are black, the small ones have the same ground colour, but are glossed with shining green; the three quills next the body have their outer edge of cinnamon-yellow, and their inner of white; the great coverts are black, and the small ones white. The female is sensibly smaller than the male, which it resembles even in the colours; only the greenish reflections of the head and wings are less apparent than in the male.

The down of these birds is very fine and soft*: the feet and their membranes are flesh-coloured; the bill is red, but its tip, and the nostrils, are black; the upper mandible is much arched near the head, depressed into a concavity on the nostrils, and raised horizontally at the end into a round spoon, edged with a pretty deep and semi-circular groove. The *trachea* has a double swelling at its partition†.

* "The feathers are very soft, as in the eider." *Linnaeus*.

† Willughby.

Pliny commends the flesh of the Sheldrake, and says, that the ancient Britons knew no better game*. Athenæus ranks its eggs next to those of the peacock, as being the second in point of goodness. It is highly probable that the Greeks raised Sheldrakes, for Aristotle remarks that some of their eggs are addle†. We had never an opportunity of tasting either their flesh or their eggs.

It appears that the Sheldrakes inhabit the cold as well as the temperate climates, and that they have penetrated into the regions of the Pacific Ocean‡: yet the species is not equally dispersed through all the coasts of our northern countries§.

Though the Sheldrakes have been called sea ducks||, and in fact do prefer the sea shores, some are found on the rivers¶ or lakes considerably inland; but the bulk of the species never leaves our coasts**. Every spring, some flocks arrive on those of Picardy, where one of

* *Suaviores epulas, olim, vulpansere non noverat Britannia.* Plin. lib. x. 22.

† *Lib. iii. 1.*

‡ On the coast of Van Diemen's land, in the forty-third degree of latitude, I reckoned among the sea-fowl, ducks, teals, and Sheldrakes. Cook.

§ They are found only in Gothland. *Fauna Suecica.*

|| *Anas Maritima.* Gefner.

¶ Schwenckfeld.

** Salerne speaks of a couple of Sheldrakes that were seen on the pool of Sologne.

our best correspondents, M. Baillon, has studied the natural habits of these birds, and made the following observations; which we are happy to publish.

“The spring,” says M. Baillon, “brings to us the Sheldrakes, but always in small number. As soon as they arrive, they spread among the sand plains near the sea: each pair wanders among the warrens, which are there interspersed, and seek a burrow among those of the rabbits. They seem very nice in choosing this sort of lodgement, for they enter an hundred before they find one to suit them. It is remarked, that they never fix on a burrow but such as sinks more than a fathom and a half deep, and runs with an ascent into ridges or hillocks, its mouth opening to the south, and visible from the top of some distant sand-bank.

“The rabbits give place to these new guests, and enter no more.

“The Sheldrakes make no nest in these holes. The female lays her first eggs on the naked sand, and after she has extruded her complement, which is ten or twelve for young birds, and twelve or fourteen for old ones, she wraps them in a very thin down, which she plucks from her own body.

“During the whole time of incubation, which is thirty days, the male remains constantly on the sand-bank, and only leaves it
“twice

" twice or thrice a-day, to procure subsistence
" on the sea. In the morning and evening, the
" female quits her eggs, to provide also for her
" wants: then the male enters the burrow,
" especially in the morning; and on the female's
" arrival, he returns to his sand bank.

" If in the spring we see a Sheldrake thus
" on watch, we may be sure to find the nest;
" we have only to wait till the hour when it
" goes into the burrow. But if it perceive itself
" to be discovered, it flies away in the opposite
" direction, and expects its female at sea. In
" their return they hover long over the warren,
" till the danger is removed.

" The day after the young are hatched, the
" parents conduct them to the sea, and usually
" adjust matters so that they arrive when the
" tide is full. By this management, their progeny
" sooner reach the water; and from that
" moment they appear no more on land. It is
" difficult to conceive how these birds can, the
" first days after their birth, preserve themselves
" in an element, whose furious waves so often
" destroy the adults of all kinds.

" If a fowler meet the little family on their
" journey, the parents fly away: the mother,
" however, affects to reel and fall an hundred
" paces off; she trails on her belly and strikes
" the earth with her wings, and by this trick
" she draws the fowler after her. The brood
" remain motionless till the return of the pa-

" rents;

“ rents, and if a person lights on them, he may
“ take them all; nor will any try to escape.

“ I have witnessed all these facts: I have frequently taken, and seen taken, the eggs from
“ the Sheldrake's nest. We dug in the sand,
“ following the burrow to its end: there we
“ found the mother sitting on her eggs; we carried them, with their downy coat, in a thick
“ woollen cloth, and set them under a duck.
“ The adopted mother rears the foreign brood
“ with much care, provided none of her own eggs
“ are left with her. The young Sheldrakes have
“ at first their back white and black, and their
“ belly very white. But they soon lose this
“ livery, and become gray: then the bill and
“ the legs are blue; about the month of September they begin to assume their beautiful
“ feathers; but it is not before the second year
“ that their colours gain all their lustre.”

“ I have reason to think, that the male is
“ not completely grown and fit for propagating
“ before this second year*; for it is not till
“ then that the blood-coloured tubercle ap-

* “ The life of the Sheldrake, which is pretty long, seems to
“ confirm the conjecture concerning its slow growth: last winter I
“ had one that died eleven years old; it would have lived longer,
“ but it became very mischievous, and domineered over all the inhabitants of the court-yard, except a musk duck, stronger than itself,
“ with which it fought incessantly: we thought to preserve the
“ weaker by shutting it up; but it died a short time after, rather from the languor of its confinement than from old age.”

Note of M. Baillon.

“ pears, which decorates their bill in the sea-
 “ son of love, and at other times is obliterated :
 “ this new sort of production seems to have
 “ some sympathy with the parts of generation.

“ The wild Sheldrake lives on sea-worms,
 “ on sand-hoppers innumerable, and, no doubt,
 “ on fish-fry, and on little shell-fish, which are
 “ thrown up by the waves, and float on the froth.
 “ The raised form of its bill gives it great ad-
 “ vantage in gathering these different substances,
 “ by skimming, so to say, the surface of the
 “ water, much more lightly than the duck.

“ The young Sheldrakes reared under a duck
 “ are soon reconciled to the domestic state, and
 “ live in court-yards like the ducks. They are
 “ fed with crumbs of bread and with grain. The
 “ wild Sheldrakes are never seen assembled in
 “ flocks, like the ducks, the teals, and the wi-
 “ geons. The male and female never part;
 “ they are observed constantly together, either
 “ on the sea or the sands: they rest satisfied
 “ with each other's company; and in pairing
 “ they seem to tie an indissoluble knot *. The

* “ Domestication, which softens the natural disposition, at the
 “ same time corrupts it: I saw in my court-yard a male Sheldrake
 “ pair two years successively with a light-coloured duck, and yet be-
 “ low always the same caresses on his own female; he was then six
 “ year old. This intercourse produced hybrids, which had nothing
 “ of the Sheldrake but the cry, the bill, and the legs; their colours
 “ were those of the duck; the only difference was, that a yellow tint
 “ appeared under the tail. I have kept three years a female of these
 “ hybrids; it has never listened to the addresses either of the drakes
 “ or of the Sheldrakes.” *Note of M. Baillon.*

“ male

“ male appears prone to jealousy; and yet, notwithstanding the ardour of these birds in love, I have never been able to obtain one hatch from any female: one alone laid a few eggs by chance, and they were addle. They are commonly of a very light flaxen colour, without any spots; they are as large as ducks eggs, but rounder.

“ The Sheldrake is subject to a singular disorder: the lustre of its feathers tarnishes, they become dirty and oily, and the bird dies, after languishing near a month. Being curious to learn the cause of this malady, I opened several, and found the blood melted down, and the principal bowels choaked with a reddish lymph, viscous and fœtid. I attribute the disease to the want of sea-salt, which I believe to be necessary to these birds, at least from time to time, to divide by its points the red particles of the blood, and to preserve the union with the *serum*, by dissolving the viscous humours, which the seeds that support them in the court-yards accumulate in the intestines.”

These observations, detailed by M. Baillon, leave very little to be added to the history of the Sheldrakes. We reared a pair of them under our eyes; they seemed not to have a wild disposition; they readily allowed themselves to be caught; they were kept in a garden, where they had liberty during the day; and when they were

taken and held in the hand, they made scarce any efforts to escape: they ate bread, bran, corn, and even the leaves of plants and shrubs; their ordinary cry was much like that of a duck, but was less extended and much less frequent, for they were very seldom heard: they had also a second cry, *uute, uute*, which they utter when caught suddenly, and which seemed to be only the expression of fear: they bathed very often, especially in mild weather, and before rain; they swam rocking on the water, and when they reached the land, they stood on their feet, clapt their wings, and shook themselves like ducks; they also frequently preened their plumage with the bill. Thus the Sheldrakes, which resemble much the ducks in the shape of their body, resemble them also by their natural habits, only they are nimbler in their motions, and discover more cheerfulness and vivacity: they have besides over all the ducks, even the most beautiful, a privilege of nature, which belongs to them alone; that is, they retain constantly, and at all seasons, the charming colours of their plumage. As they are not difficult to tame, and as their rich garb is conspicuous at a distance, and has a very fine effect on pieces of water, it is to be wished that we could obtain a domestic breed of these birds: but their temper and constitution seem to fix them on the sea, and to repel them from fresh pools; the experiment could there-fore

fore be made only on lands situated very near salt water.

[A] Specific character of the Sheldrake, *Anas Tadorna*: "Its bill is flat; its front compressed; its head greenish-black; its body variegated with white." These birds remain in England the whole year: they lay fifteen or sixteen eggs, which are white and roundish: their flesh is very rank.—Mr. Pennant writes the name *Shieldrake*; and perhaps the form of its bill might suggest a *shield*.

The P O C H A R D.

LE MILLOUIN. *Buff*.

Anas Ferina. Linn. and Gmel.

Penelope. Johnst. Charleton, and Brisson.

Anas Fera fusca, vel media. Gesn. Aldrov. Will. &c.

Anas Fusca. Johnst. Marf. and Schwenckf.

The Poker, Pochard, Red-head Wigeon. Will. and Ray*.

THE Pochard is stiled by Belon *the rufous-headed duck*. In fact, its head, and part of its neck, is of a rufous brown, or chesnut; that colour cut round at the bottom of the neck, is succeeded by black or blackish brown, which is likewise cut round on the breast and the top of

* In Brie it is called *Moreton*: in Burgundy *Rougeot*: in Catalonia *Buixot*: in the Bolognese *Collo Rosso* (*red-neck*): in Germany *Rot-hals* (*red-throat*): *Rot-ente* (*red duck*): *Mittel-ente* (*middle-duck*): *Braun köpfschte-ente* (*brown-headed duck*): in Silesia *Braun-ente*: in Denmark *Brun Nakke* (*brown-neck*): in Norway *Rød Nakkē* (*red-neck*).

the back: the wing is gray, tinged with blackish, and without any spangle; but the back and the sides are prettily worked with a very fine fringe, which runs transversely in little black zigzags on a ground of pearl-gray. According to Schwenckfeld, the head of the female is not rufous like that of the male, and has only some rusty spots.

The Pochard is as large as the sheldrake, but is more unwieldy; its round shape gives it a heavy air; it walks with difficulty and ungracefully, and is obliged from time to time to flap its wings, in order to preserve its equilibrium on land.

Its cry resembles more the hollow hiss of a large serpent than the voice of a bird. Its bill, broad and scooped, is very proper for dabbling in the mud, like the shovelers and the morillons, to search for worms, small fish, and crustaceous animals. Two male Pochards, which M. Baillon kept a winter in his court-yard, remained almost constantly in the water; they were very strong and courageous on that element, and would suffer none of the other ducks to approach them, but drove them away with their bill. These, however, in their turn, beat them when they came on land, and the Pochards could then make no defence, but escaped to the water. Though they were tame, and even grown familiar, they could not be long preserved, because they could not walk without hurting their feet; the gravel of the garden-walks were as pernicious as the pave-

ment

ment of the court; and, notwithstanding the care which M. Baillon took of these two Pochards, they lived not more than six weeks in their captivity.

"I believe," says this good observer, "that these birds belong to the north. Mine continued in the water during the night, even when the frost was intense; they also agitated it, to prevent its freezing round them."

The Pochards, he adds, as well as the shovelers and the golden-eyes, eat much, and digest as quickly as the duck. They lived at first only on soaked bread, afterwards they ate dry, but swallowed it in that state with difficulty. I could never habituate them to grain. The shovelers alone seem fond of the seeds of the bulrush.

M. Hebert, who, as an attentive and even ingenious sportsman, has found other pleasures in fowling than that of killing, has made on these birds, as on many others, interesting observations. "It is the species of the Pochard," says he, "which, next to that of the wild duck, appears to me the most numerous in the countries where I have gone a-fowling. They arrive with us in Brie about the end of October, in flocks from twenty to forty. Their flight is more rapid than that of the duck, and the noise made by their wings is quite different. The troop forms a close body in the air, but not disposed like the wild ducks in triangles. On their arrival, they are restless;

“ less; they alight on the large pools, and, the
 “ instant after, they rise, make several wheels in
 “ the air; a second time they alight, but their
 “ stay is equally short; they disappear, and re-
 “ turn in an hour, and yet do not settle. When
 “ I killed one, it was always by chance, and
 “ with very coarse shot, and when they whirled
 “ in the air. They were all remarkable for a
 “ large rufous head, whence they are called
 “ *rougeot* in Burgundy.

“ It is not easy to get near them on the large
 “ pools; they alight not on the brooks in frosty
 “ weather, nor on the little pools in autumn;
 “ and many of them cannot be killed, except
 “ on the *duckeries* of Picardy. However, they
 “ are pretty common in Burgundy, and at Dijon
 “ they are seen in the cooks shops almost the
 “ whole year. I killed one in Brie in the
 “ month of July, when the weather was ex-
 “ tremely hot: it flushed at the side of a pool,
 “ in the middle of a wood, and in a very soli-
 “ tary spot: it was attended by another, which
 “ made me think that they were paired, and
 “ that some couples of this species breed in
 “ France on the large marshes.”

We shall add, that this species has penetrated
 into distant countries, for we received from
 Louisiana a Pochard exactly like what is found
 in France; and besides the same bird may be re-
 cognized in the *quapacheanaubtli* of Fernandez,
 which Brisson has, for that reason, called the

Mexican

Mexican Pochard *. With regard to the variety of the French Pochard described by that ornithologist, we must content ourselves with what he has said: for we are unacquainted with this variety.

* *Anas Fulva*. Gmel.

Penelope Mexicana. Briff.

The Mexican Pochard. Lath.

Specific character: "It is fulvous; its back, its shoulders, its wings, and its rump, are striped transversely with fulvous and brown; its tail is variegated with black and white."

[A] Specific character of the Pochard, *Anas Ferina*: "It is waved with cinereous; its head is brown; the bar on its breast, its vent, and its rump, are black." The Pochards are reckoned delicate eating, and are sold in the London markets under the name of *dun-birds*. They are found also through the whole extent of North America.

The MILLOUINAN.

THIS beautiful bird, for our knowledge of which we are indebted to M. Baillon, is as large as the pochard (*millouin*), and its colours, though different, are disposed in the same manner: we have therefore called it the *Millouinan*. Its head and neck are covered with a large black *domino* with copper-green reflections, cut round on the breast and the top of the back: the mantle is finely worked with a small black hatching,

hatching, running lightly in the ground of pearl-gray: two pieces of the same work, but closer, cover the shoulders; the rump is worked in the same way: the belly and stomach are of the finest white. On the middle of the neck may be observed the obscure trace of a rufous collar: the bill of the *Millouinan* is neither so long nor so broad as that of the pochard.

The individual which we describe was killed on the coast of Picardy; and I have since received from Louisiana another, precisely similar if not somewhat smaller. It is not, we have seen, the only species of duck which is common to both continents; yet this *Millouinan* has not hitherto been remarked or described, and, no doubt, seldom appears on our coasts.

THE GOLDEN EYE.

LE GARROT. *Buff.*

Anas Clangula. Linn. and Gmel.

Clangula. Gefner, Johnst. and Klein.

Anas Platyrincbos. Aldrov.*

THE Golden Eye is a little duck whose plumage is black and white, and its head remarkable for two white spots placed at the corners

* In Lorraine it is called the *Hungarian Duck*: in Alsace the *Magpie Duck*: in Italy *Quattr' Occhi*: in Germany *Kobel-ente*, *Straus-ente*,

ners of the bill, which at a distance appear like two eyes, situated near the other two, in the black hood glossed with green, which covers the head and the top of the neck. Hence the Italian name *Quattr'Occhi*, or *four eyes*. The English have termed it *Golden Eye*, because its iris is of a golden-yellow. Its tail and back are black, as well as the great quills of the wing, of which most of the coverts are white: the lower part of the neck, with all the fore side of the body, is of a fine white: the legs are very short, and the membranes which connect the toes extend to the tips of the nails, and are there fastened.

The female is rather smaller than the male, and differs entirely in its colours, which, as generally observed in all the ducks, are duller and paler in the females: those of the female Golden Eye are gray or brownish, which in the male are black; and those white gray, which in the other are of a fine white: nor has she the green reflection on the head, or the white spot at the corner of the bill *.

The flight of the Golden Eye, though pretty low, is very stiff, and makes the air to whistle †.

ente, *Quaker-ente*, *Eis-ente*; and in the neighbourhood of *Straßburg* *Weisser-dritt-vogel*: in Sweden *Knippa*; and in the province of *Skonen* *Dopping*: in Norway *Ring-eye*, *Hviin-and*, *Lund-and*.

* *Aldrovandus*,

† *Idem*.

It

It does not scream in taking wing, and seems not so shy as the other ducks. Small flocks of Golden Eyes are seen on our pools during the whole winter; but they disappear in the spring, and no doubt go to nestle in the north; at least, Linnaeus says, in the *Fauna Suecica*, that this duck is seen in summer in Sweden, and in that season, which is also that of breeding, it lives in the hollows of trees.

M. Baillon, who tried to keep some Golden Eyes in the domestic state, has just communicated the following observations.

"These birds," says he, "lost much flesh in a short time, and hurt themselves under the feet when I allowed them to walk at liberty. They lay for the most part on their belly; but if other birds attacked them, they made a stout defence: I can even say, that I have seen few birds so rancorous. Two males which I had last winter, tore my hand with their bill, as often as I laid hold of them. I kept them in a large osier cage, that they might be habituated to captivity, and might see the other fowls rambling about the court. But they betrayed in their prison only the marks of impatience and rage, and darted against the bars at the other birds which approached. I succeeded, with much difficulty, in teaching them to eat bread, but they constantly refused every sort of grain.

"The

“ The Golden Eye,” adds this attentive observer, “ like the pochard and the morillon, “ walks under constraint and difficulty, with “ effort, and seeming pain. Yet these birds come “ from time to time on shore, but only to remain “ there in tranquillity and repose, standing or “ lying on the strand, and to enjoy a pleasure “ which is peculiar to themselves. Land-birds “ feel the necessity of bathing at intervals, whether to clean their plumage of the dust which “ insinuates into it, or to give dilatation to their “ body, which facilitates their motions ; and they “ announce, by their cheerfulness on quitting the “ water, the agreeable sensation which they feel. “ In the aquatic birds, on the contrary, in those “ which remain long in the water, their feathers “ become through time penetrated and moistened, and permit the humidity to steal insensibly to the skin : then they have occasion for an “ air bath to dry and contract their relaxed limbs ; “ they come, for this purpose, on shore, and the “ sprightliness of their eyes, and the slow balancing “ of their head, express their agreeable sensation. “ But the Golden Eyes, and likewise the pochards “ and the morillons, are satisfied with that gratification ; they never willingly come to land, and “ especially avoid walking on it, which seems to “ cause extreme fatigue : in fact, accustomed as “ they are to move in the water by short darts, “ produced by the brisk and sudden motion of “ their

“ their feet, they bring this habit with them on
“ land, and walk by springs, striking the ground
“ so forcibly with their broad feet, that their
“ pace is attended with the same noise as the
“ clapping of hands; they use their wings to
“ preserve the equilibrium, which they lose every
“ minute; and if they be hastened, they make a
“ bound, throwing their legs back, and fall on
“ their breast: their feet also are torn and cut in
“ a short time by rubbing on the gravel. It
“ appears, therefore, that these birds, destined
“ solely for the water, can never augment the
“ colonies planted in our court-yards.”

[A] Specific character of the Golden Eye, *Anas Clangula*: “ It
“ is variegated with black and white; its head violet and swelled;
“ a black spot on the corner of the mouth.” Linnæus says, that it
dives excellently for fish and shell-fish, that it eats frogs voraciously,
that it often builds its nest in trees with grass, and lays from seven
to ten white eggs, and that its flesh is agreeable.—This bird
visits the meres of Shropshire in winter.

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THE MORILLON.

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The MORILLON.

Anas Glaucion. Linn. and Gmel. •

THE Morillon is a handsome little duck, which, when seen at rest, exhibits these colours; a broad blue bill, a large black *domino*, a mantle of the same, and white on the stomach, the belly, and the top of the shoulders: this white is free and unadulterated, and all the black is shining, and heightened with fine purple and greenish-red reflections; the feathers on the back of the head rise into a bunch: often the lower part of the black domino on the breast is waved with white: and, in this species, as in others of the genus of ducks, the colours are liable to certain variations, but which are only individual †.

When the Morillon flies, its wing appears striped with white: this effect is produced by seven feathers, which are partly of that colour ‡. The inside of the legs and thighs are reddish, and the outside black; the tongue is fleshy, and swelled at the root, which seems parted in two:

• In Brie it is called the *Jacobine*: in Germany *Scheel-ente* (*squinting-duck*), *Schilt-ente* (*shield-duck*), *Lepel-ganz*.

† Ray.

‡ Beion.

there

there is no gall-bladder. Belon regards the Morillon as the *glaucium* of the Greeks, *not having found*, he says, *a bird with eyes of such a glaucous colour*. Indeed, the *glaucium* of Athenæus was so called because its eyes were sea-green.

The Morillon frequents the pools and rivers *, and yet occurs also on the sea †; it dives pretty deep ‡, and feeds on little fish, crustaceous animals, and shell-fish, or on the seeds of aquatic plants ||, especially those of the common rush. It is less shy, and not so apt to flush, as the wild duck: it may be approached within gun-shot on pools, or, still better, on rivers, when the frost prevails. When it rises, it does not fly to great distances §.

M. Baillon has communicated his observations on this species in the state of domestication. "The colour of the Morillon," he says, "its manner of balancing its head as it walks, and of holding its head almost erect, give it an air the more singular, as the beautiful light-blue of its bill, applied always on its breast, and its large brilliant eyes, are strongly contrasted with the black of its plumage.

"It is pretty chearful, and dabbles like the duck whole hours. I easily tamed several in

* Belon.

† *Fauna Suecica*.

‡ Belon.

|| *Idem*.

§ Observation of M. Hebert.

" my

" my court: they became so tame in a short time, that they entered the kitchen and the rooms: they were heard before they could be seen, because of the noise made at each step, clapping their broad feet on the ground and the floor. They were never seen to take any unnecessary perambulations; which proves what I have before said, that this species walks only when urged by its wants. Their feet were indeed soon peeled on pavement; yet they grew lean very slowly, and might have lived a long time, had not the other fowls tormented them.

" I procured," adds M. Baillon, " more than thirty Morillons, to see whether the tuft, which is very apparent in some individuals, constitutes a particular species: I found that it was an ornament of all the males*.

" The young ones are at first of a smoky gray: this livery remains till after moulting; and they acquire not all their fine brilliant black till the second year; at that time, also, their bill becomes blue. The females are always less black, and have no tuft."

* I have killed some which had on the crown of the head a few feathers that were longer and broader than the rest, which formed a sort of inconspicuous tuft: I have killed others that had not a vestige of it. *Note communicated by M. Hebert.*

[A] Specific character of the Morillon, *Anas Glaucion*: " Its body is blackish; its breast cloudy; a white linear spangle on the wings."

The LITTLE MORILLON.

Anas Fuligula. Linn. Gmel. Klein. Johnst. &c.

Glaucium Minus. Briss.

Fuligula. Gesner, Aldrov. &c.

Anas Cristata. Ray.

The Tufted Duck. Will. Penn. and Lath.*

AFTER what we have said of the diversity that prevails in the plumage of the Morillons, we are much inclined to refer to the same accidental causes the difference of bulk which has made the little Morillon be reckoned a distinct and separate species. That difference is indeed so small, that we might strictly disregard it †, or at least attribute it to the varieties which necessarily obtain among individuals, occasioned by the diversity of age and of the seasons of growth. Yet most ornithologists have described this little Morillon as a different species from the other; and, as we cannot contradict them by positive facts, we shall here mention

* In Swedish *Wigge*: in German *Woll-enten*; and by some *Russen*: at Venice it is called *Capo Negro*, or *black-head*.

† “*The Morillon*—from the end of the bill to that of the tail is fourteen inches nine lines; to the end of the nails fifteen inches.”

“*The Little Morillon*—from the end of the bill to that of the tail is twelve inches six lines; to the end of the nails fourteen inches ten lines.” *Briffon*.

our

our doubts, which we believe to be not ill-founded. Belon even, whom the rest have followed, and who was the first author of this distinction, seems to furnish a proof against his own opinion: for after having said of his *little diver*, which is our little Morillon, that "it is an handsome tight bird, round and short, its eyes so yellow and shining, that they are brighter than polished iron," and that with a plumage similar to that of the Morillon, it has likewise a white line across the wing; he adds, "that it is far from being a true Morillon, for it has a tuft on the back of the head like the goofander and the pelican, while the Morillon has none." But Belon is here mistaken, and this character of the tuft is another reason that this bird should be classed with the true Morillon.

Briffon gives still another variety of this species, under the name of the *little striped Morillon* *; but it is certainly a variety from age.

- * *Anas Marila*. Linn. and Gmel.
- Glaucium Minus Striatum*. Briff.
- Fuligula Gesneri*. Ray, and Will.
- The Scaup Duck*. Penn. and Lath.

Specific character: "It is black, its shoulders waved with cinereous; its belly, and the spangle on its wings, are white." It owes its name to its feeding on *scaup*, or broken shell-fish.

[A] Specific character of the Tufted Duck, *Anas Fuligula*: "Its crest is hanging, its body black; its belly, and the spangle on its wings, are white."

The S C O T E R.

LA MACREUSE. *Buff.**Anas Nigra.* Linn. Gmel. Will. and Briss.*The Whilk.* Philos. Transact.*The Black Diver, or Scoter.* Will.

IT has been pretended that the Scoters are engendered, like the barnacles, in shells or in rotten wood *. We have sufficiently refuted these fables, with which natural history is here, as in other parts, too much tinctured. The Scoters lay, nestle, and hatch, like other birds. They prefer for their habitation the most northern countries, whence they descend in great numbers along the coasts of Scotland and England, and arrive on the coasts of France in winter, to afford a very indifferent sort of game, but which is eagerly expected by our monks and nuns, who, being entirely denied the use of flesh, and restricted to fish, are indulged with these birds, from a notion that their blood is as cold as that of fish: but in fact their blood is just as warm as that of other aquatic birds; though

* Hence the name *Scoter*; Scotland being the principal scene of this fabulous transmutation of the barnacles.—T.

indeed

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THE SCOTER DUCK.

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indeed the black, dry, and hard flesh of the Scoter may be deemed a diet of mortification.

The plumage of the Scoter is black: it is nearly as large as the common duck, but it is shorter and more compact. Ray observes, that the tip of the upper mandible is not terminated by a horny nail, as in all the other species of this genus: in the male, the base of that part, near the head, is considerably swelled, and exhibits two tubercles of a yellow colour; the eye-lids are of the same colour; the toes are very long, and the tongue is very large; the *trachea* has no labyrinth, and the *cæca* are very short in comparison of those of the other ducks.

M. Baillon, that intelligent and laborious observer, whom I have so often had occasion to cite on the subject of water-fowl, has sent me the following observations:

“ The north and north-west winds bring
“ along our coasts of Picardy, from the month
“ of November to that of March, prodigious
“ flocks of Scoters: the sea, so to speak, is covered with them. They are seen flying incessantly from place to place, and by thousands: they appear and disappear on the water every minute: as soon as a Scoter dives, the whole troop imitates it, and emerges again a few moments after. When the south and south-east winds blow, about the month of March, they are driven from our coasts, and entirely disappear.

“ The favourite food of the Scoters is a kind
“ of bivalve shell, smooth and whitish, four lines
“ broad and about ten long, which are found
“ clustered in many deep shoals: there are
“ pretty extensive banks of them, which are
“ left bare by the ebb tide. When the fisher-
“ men remark that the Scoters dive for the
“ *vaimeaus* (the term which they apply to these
“ shells) they spread their nets horizontally but
“ very loose, above these shell-fish, and two or
“ three feet at most from the sand; a few hours
“ after, the tide flowing in covers the nets, and
“ the Scoters following the reflux two or three
“ hundred paces from the beach, the first that
“ perceives a *vaimeau* dives, and all the rest, co-
“ pying the example, entangle themselves among
“ the floating meshes, or if some, more shy, go
“ a little aside and pass under the nets, they rise
“ after having fed, and soon inwrap themselves
“ like the rest: they are all drowned, and when
“ the sea has retreated, the fishermen go to dis-
“ engage them from the nets, on which they
“ are suspended by the head, the wings, or the
“ feet.

“ I have several times seen this sort of fish-
“ ing: a net of an hundred yards long and three
“ yards broad caught sometimes twenty or
“ thirty dozen in a single tide; but to balance
“ this good fortune, the nets are often stretched
“ twenty times without catching one; and at
“ times

" times they are carried away or rent by porpoises or sturgeons.

" I never saw any Scoters fly any where but above the sea, and I have always remarked that their flight was low and gentle, and of small compass: they scarce ever rise, and while on wing their feet often drag in the water. It is probable that the Scoters are as prolific as the ducks, for the number which arrives every year is prodigious; and notwithstanding the multitudes that are caught, they seem not to diminish."

Having enquired of M. Baillon his opinion with regard to the distinction between the male and female of this species, and to the gray Scoters or *grisettes*, which some have said to be females; he gave me this answer:

" The *griset*te is certainly a Soter, and has exactly the figure. These *griset*tes are always seen in company with the other Scoters; they feed on the same shell-fish, swallow them entire, and digest them in the same manner. They are caught in the same nets, and they fly as badly and in the same way, and this is peculiar to these birds, which have the bones of the wings more turned backwards than the ducks, and the cavities, in which the two thigh-bones are sunk, very near each other; a structure which gives them great facility in swimming, and makes them at the same time very awkward in walking: and surely no spe-

"cies of ducks has the thighs placed in this manner. Lastly, the taste of their flesh is the same.

"I opened three of these *grifettes* in winter, and they were found to be females.

"On the other hand, the number of gray Scoters is much inferior to that of the black; often not ten occur among an hundred of the others, caught in the same net. How could the females be so few in this species?

"I freely own that I have not sought sufficiently to distinguish the males from the females. I stuffed a great number; I chose the blackest and the largest, and they were all found to be males, except the *grifettes*. I believe, however, that the females are somewhat smaller, and not so black, or at least they have not that velvet surface which makes the black of the male plumage so deep."

It appears to us from this detail, that as the female Scoters are not quite so black as the males, and more inclined to gray, the *grifettes*, or the Scoters which verge on gray, are too few to represent all the females of the species, and are in fact the younger females, which require time to assume all the black of their plumage.

After this first answer, M. Baillon sent us also the following notes, which are all interesting. "I have had," says he, "this year, 1781, for several months in my court, a black Scoter.

"I fed

" I fed it with soaked bread and shell-fish. It
" was become very familiar.

" I believed till then that the Scoters could
" not walk, and that their conformation deprived
" them of that power. I was the more per-
" suaded, as I had several times, in storms, ga-
" thered, on the sea-shore, Scoters, penguins,
" and puffins alive, which could drag themselves
" along only by help of their wings. But these
" birds had, no doubt, been much beaten by the
" waves; and that circumstance, which I had
" overlooked, confirmed me in my error. I
" was surprized to remark, that the Scoter
" walks well, and faster even than the pochard;
" it balances itself in the same manner at each
" step, holding its body almost erect, and strik-
" ing the ground with each foot alternately and
" with force; its pace is slow; if pressed, it
" tumbles, because the efforts which it makes
" destroys its equilibrium: it is indefatigable in
" the water; it runs on the waves like a petrel,
" and as nimbly; but, on land, the celerity of
" its motions are of no avail; mine seemed
" quite out of its natural element.

" Indeed, it had a very aukward air; each
" movement gave its body fatiguing jogs; it
" walked only from necessity: it usually lay
" down or stood straight like a stake, its bill
" leaning on its stomach: it always seemed to
" be melancholy: I never once saw it bathe
" joyous, like the other water-fowls, with which
" my

“ my court is filled ; it never entered the shallow trough which is placed level with the surface of the ground, but to eat the bread which I threw to it : when it had eaten and drank it remained motionless ; sometimes it dived to the bottom, to gather the crumbs which fell down ; if any bird came into the water and approached it, the Scoter endeavoured to drive away the intruder ; if this made any opposition or resistance, it dived, and after making two or three turns at the bottom of the trough, it flew out of the water, making a sort of whistling, very soft and clear, like the first tone of a German flute : this is the only cry I ever knew it make, which it repeated as often as a person approached it.

“ Being desirous to know if the bird could continue long under water, I held it down by force ; it made considerable efforts after two or three minutes, and seemed to suffer much ; it bounded up as quick as a cork. I believe it could remain longer, because it descends often to the depth of thirty feet in the sea to gather the oblong bivalves on which it feeds.

“ These shell-fish are whitish, four or five lines broad, and near an inch long. It does not amuse itself like the sea-pie in opening them, the shape of its bill not being, as in that bird, adapted for the purpose : it swallows them whole, and digests them in a few hours. I gave sometimes more than twenty to a single

“ Scoter ;

" Scoter ; and it received them till its *æfophagus*
 " was filled up to the bill : then its excrements
 " were white. They assumed a green tinge
 " when the bird was fed with bread, but were
 " always liquid. I never saw it eat herbs or the
 " seeds of plants, like the wild ducks, the teals,
 " the wigeons, and others of this genus : the sea
 " is its only element. It flies as ill as it walks :
 " I have often amused myself in viewing thro'
 " a spy-glass the numerous flocks on the sea ; I
 " never saw them rise and fly to any distance ;
 " they fluttered incessantly above the surface of
 " the water.

" The feathers of this bird are so smooth and
 " close, that the bird, on coming out of the wa-
 " ter, can shake itself dry.

" The same cause which proved fatal to so
 " many other birds in my court, occasioned also
 " the death of my Scoter. The soft and tender
 " skin of its feet were perpetually bruised by the
 " gravel ; a *callus* formed on each joint of the
 " toes ; in time they were worn to such a de-
 " gree, that the nerves were disclosed ; it durst
 " no longer walk, or go to the water, each step
 " increasing its wounds : I put it in my garden
 " on the grass under a cage, but it would not
 " eat ; and it died in my court a few days
 " after."

[A] Specific character of the Scoter or Black Diver, *Anas*
Nigra : " Its body is entirely black." It is frequent in the lakes
 and rivers of Siberia : it has a fishy taste.

The DOUBLE SCOTER.

LA DOUBLE MACREUSE. *Buff.*

Anas Fusca. Linn. and Gmel.

Anas Nigra Major. Briff.

Anas Nigra. Aldrov. Gesn. Klein, &c.

The Great Black Duck. Will.

The Velvet Duck. Penn. and Lath.

AMONG the great number of Scoters which come in winter on the coasts of Picardy, some are remarked much larger than the rest, and therefore called the *Double Scoters*. Besides this difference of size, they have a white spot on the side of the eye, and a white bar on the wing; while the plumage of the others is entirely black. These characters are sufficient to constitute a second species, which appears to be much less numerous than the first, but resembles it in structure and habits. Ray observed in the stomach and the intestines of these large Scoters, fragments of shells; the same probably that, Baillon says, is the principal food of the Scoter.

[A] Specific character of the Velvet Duck, *Anas Fusca*: "It is blackish; its lower eye-lid, and the spangle on its wings, are white." It is frequent in Siberia, and even in Kamtschatka: it lays eight or ten eggs.

The BROAD-BILLED SCOTER.

LA MACREUSE 'A LARGE BEC. Buff.

Anas Perspicillata. Linn. and Gmel.

Anas Nigra Major Freti Hudsonis. Briss.

The Great Black Duck from Hudson's Bay. Edw.

The Black Duck. Penn. and Lath.

THIS is undoubtedly a Scoter, and perhaps belongs to the same species with the preceding. It is well characterized by the breadth of its flat, short bill, edged with an orange streak, which incircling the eye, seems to delineate spectacles*. This large Scoter visits England in the winter; it alights in the meadows, where it feeds on grass. Edwards thinks that he can discover it in one of the figures of a small collection published at Amsterdam in 1679, by *Nicolas Visscher*, in which it is denominated *turma anser* (*troop-goose*); a term which probably alludes to its bulk, which exceeds that of the common duck, and indicates at the same time that these birds are seen in flocks: and as they occur in Hudson's Bay, the Dutch might have

* Hence the Linnæan epithet for the species, *Perspicillata*, from *Perspicillum*, a pair of spectacles.—T.

observed

observed them in Davis's Straits, where they carry on the whale-fishery.

[A] Specific character of the Black Duck, *Anas Perspicillata* : " It is black ; its top and nape white ; a black spot on the bill behind the nostrils." It breeds in July along the shores of Hudson's Bay : it builds its nest with grass, and lines it with feathers : it lays from four to six eggs, which are white. It pastures on grass.

The BEAUTIFUL CRESTED DUCK.

Anas Sponsa. Linn. and Gmel.

Anas festiva. Briss.

Tsathonyayauhqui. Fernandez.

The American Wood Duck. Brown.

The Summer Duck. Catf. Penn. and Lath.

THE rich plumage of this beautiful Duck seems to be a studied attire, a gala suit, to which its elegant head-dress adds grace and lustre* : a piece of beautiful rufous, speckled with little white dashes, covers the back of the neck and the breast, and is neatly intersected on the shoulders by a streak of white, accompanied by a streak of black ; the wing is covered with feathers of a brown that melts into black with rich reflections of burnished steel ; and those of the flanks are very delicately fringed and vermi-

* Hence Linnæus calls it *Sponsa*, or the bride.—T.

culated with little blackish lines on a gray ground, and are prettily striped at the tips with black and white, of which the streaks are displayed alternately, and seem to vary according to the motion of the bird: the under side of the body is pearly white-gray; a small white collar rises into a chin-piece below the bill, and sends off a scallop below the eye, on which another long streak of the same colour passes like a long eye-lid; the upper side of the head is decorated with a superb tuft of long feathers, white, green, and violet, which fall back like hair, in bunches parted by smaller white bunches. The front and the cheeks dazzle with the lustre of bronze: the iris is red; the bill the same, with a black spot above, and the horny tip is of the same colour; the base is hemmed with a fleshy brim of yellow.

This beautiful Duck is smaller than the common duck, and the female is as simply clothed as the male is pompously attired. She is almost all brown; "having, however," says Edwards, "something of the crest of the male." This observer adds, that he received several of these charming ducks alive from Carolina; but he does not inform us whether they propagated. They like to perch on the tallest trees; whence several travellers style them *branch ducks*. Catesby calls them *summer ducks* *; from which we may infer,

* "The most beautiful birds that I have seen in this country
" (at Port-Royal in Acadia, or Nova Scotia) are the *branch ducks*,
" so

infer, that they reside during the summer in Virginia and Carolina *: in fact, they breed there, and place their nests in the holes made by the woodpeckers in large trees near water, particularly on the cypress; the parents carry their young into the water on their back, and these on the least symptom of danger cling by the bill.

"so called because they perch; nothing is finer or better mingled than the endless variety of colours that compose their plumage: but I was still more surprized to see them perched on a pine, a beech, or an oak, and to see them hatch their young in a hole of some of these trees, which they rear till they are able to leave the nest, and, according to instinct, follow their parents to the water. They are very different from the common sort, called black, and which in fact are almost entirely of that colour, without being variegated like ours: the branch ducks have a more slender body, and are likewise more delicate eating." *Voyage au Port-Royal de l'Acadie, par M. Dierville; Rouen, 1708, p. 112.*— "There is a kind which we call *branch ducks*, which roost on trees, and whose plumage is very beautiful on account of the agreeable diversity of colours which form it." *Nouvelle Relation de la Gaspésie, par le P. Le Clerc; Paris, 1698, p. 485.*

* According to Du Pratz, they are seen the whole year in Louisiana. "The branch ducks are somewhat larger than our teals; their plumage is exceedingly beautiful, and so changing that painting cannot imitate it; they have on the head a beautiful crest of the brightest colours, and their red eyes appear like flames. The natives deck their calumets or pipes with the skin of the neck: their flesh is very good, but when too fat it has an oily taste. This species of duck is not migratory, it is found in all seasons, and it perches, which the rest do not; hence it is called *the branch duck*."

[A] Specific character of the Summer Duck, *Anas Sponsa*: "Its crest is hanging and double; it is variegated with green, with blue, and with white." It nestles in the holes bored by the woodpeckers in trees near water: and when the young are hatched, it carries them to the stream. This bird seems to retire to Mexico in winter. It is esteemed delicate food.

The LITTLE THICK- HEADED DUCK.

Anas Bucephala. Linn. and Gmel.

Anas Hyberna. Briss.

The Buffel-headed Duck. Catesby, Penn. and Lath.

THIS little Duck is of a middle size between the common duck and the garganey. All its head is clothed with a tuft of unwebbed feathers, agreeably tinged with purple, and heightened by reflections of green and blue. This thick tuft increases considerably the bulk of its head; and hence Catesby styles it the *Buffel-headed Duck*. It frequents the fresh waters in Carolina. Behind the eye is a broad white spot; the wings and the back are marked with longitudinal spots, black and white alternately; the tail is gray; the bill is lead-colour, and the legs are red.

The female is entirely brown; its head uniform, and without a tuft.

This Duck appears in Carolina only in winter; but that is no reason why Brisson should give it the appellation of *winter Duck*; for it must live elsewhere in the summer, and in such countries it might with equal propriety be named the *summer Duck*.

[A] Specific character of the *Anas Bucephala*: "It is whitish; its back and wing-quills black; above and below its head there is a swelling of a silky gloss."

The COLLARED DUCK of NEWFOUNDLAND.

Anas Histrionica. Linn. and Gmel.

Anas Torquata ex insula Novæ Terræ. Briss.

Anas Brimond. Olaff.

Stone Duck. Hist. Kamtschatka.

The Dusky and Spotted Duck. Edw.

The Harlequin Duck. Penn. and Lath.

THIS Duck, though small, short, and round, and of a dusky plumage, is yet one of the handsomest birds of the genus: besides the white streaks which intersect the brown of its garb, the face looks like a mask, with a long black nose and white cheeks; and this black of the nose extends as far as the top of the head, and there joins to two large rufous eye-lids of a very bright bay-colour. The black *domino*, which covers the neck, is edged and intersected below by a little white ribband, which probably induced the fishers at Hudson's Bay to style it *lord* *. Two other little white bands, fringed with black, are placed on each side of the breast, which is iron gray; the belly is dun-gray; the flanks are bright rufous, and the wing exhibits a spangle of purple-blue or burnished steel: there is also a white speckle behind the ear, and a little white serpentine line on the side of the neck.

• Edwards.

The

The female has none of these decorations; her garb is a blackish brown-gray on the head and the mantle; a white gray on the fore side of the neck and of the breast; and a pure white on the stomach and the belly. The bulk is nearly that of the morillon; and the bill is very short and small in proportion.

This species is the same with Steller's *anas picta capite pulchre fasciato* *, or the *mountain Duck* of Kamtschatka, and the *anas histrionica* of Linnæus, which appears in Iceland, according to Brunnich, and occurs not only in the north-east of Asia, but even on lake Baikal, according to Georgi's account, though Krachenninikoff considers this species as peculiar to Kamtschatka †.

* i. e. The painted Duck with a beautifully striped head.

† He says, that in autumn the females are found on the rivers, but not the males. He adds, that these birds are very stupid, and are easily caught in clear water; for when they see a man, they dive, and may be killed at the bottom with strokes of a pole. *History of Kamtschatka*.

[A] Specific character of the Harlequin Duck, *Anas Histrionica* :
 "It is brown, variegated with white and blue; its ears, a double line on its temples, its collar, and a bar on its breast, are white."
 It breeds on the banks of swift streams among the low shrubs: and in winter it repairs to the open sea. It is clamorous, and its flight is lofty and rapid.

The BROWN DUCK.

Anas Minuta. Gmel.

WERE it not for the too great difference in bulk, the resemblance, almost complete, of the plumage would have induced us to refer this species to the *little brown and white Duck from Hudson's Bay* of Edwards. But this is only as large as the *farcelle*, and the Brown Duck is intermediate between the wild Duck and the golden-eye. It is probable that the individual delineated is only the female of this species; for it wears the dusky livery appropriated to all the female Ducks. A blackish brown ground on the back, and rusty-brown, clouded with white gray, on the neck and the breast; the belly white, with a white spot on the wing, and a broad spot of the same colour between the eye and the bill, are all the dashes in its plumage. It is probably the same with what Rzaczynski mentions in these words, *Lithuania Poleſia alit innumeras anates, inter quas sunt nigricantes**. He adds, that these blackish Ducks are known to the Russians by the name of *uble*.

* i. e. Polish Lithuania breeds innumerable Ducks, among which is a blackish sort.

[A] Specific character of the *Anas Minuta*: "It is brown; its ears white; its primary wing-quills blackish."

The GRAY-HEADED DUCK.

Anas Spectabilis. Linn. and Gmel.

Anas Freti Hudsonis. Briss.

The King Duck. Penn. and Lath.

WE prefer the appellation of *Gray-headed Duck*, given by Edwards, to that of *Hudson's Bay Duck*, employed by Brisson: in the first place, because there are many other Ducks in Hudson's Bay; and in the second place, because an epithet founded on a specific character is always preferable to one drawn from the country. This gray-headed Duck is hooded remarkably with a blueish cinereous cowl, falling in a square piece on the top of the neck, and parted by a double line of black points, like inverted commas, and by two plates of pale green which cover the cheeks: the whole is intersected by five black mustachoes, three of which project to a point on the top of the bill, and two others extend behind under the corners: the throat, the breast, and the neck, are white; the back is blackish brown, with a purple reflection; the great quills of the wing are brown; the coverts are purple or deep violet, shining, and each feather terminated by a white point, of which the series forms a transverse line: there is also a

large white spot on the small coverts of the wing, and another of a round form on each side of the tail; the belly is black; the bill is red, and its upper mandible is parted into two brims, which swell, and, to use the words of Edwards, nearly resemble beans. It is the most singular part, he adds, of the conformation of this bird, which exceeds the size of a domestic duck. Yet we must observe, that *the female collared duck from Newfoundland* of our *Planches Enluminees* is much analogous to the gray-headed Duck of Edwards; the chief difference consists in this, that the tints of the back are blacker in the plate of that naturalist, and that the cheek is painted greenish.

- [A] Specific character of the King Duck, *Anas Spectabilis*:
 "Its bill is compressed at the base; a black feathery keel; its head
 "somewhat hoary." This bird is very common in Greenland,
 and affords the natives much down.

The WHITE-FACED DUCK.

THE first peculiarity that strikes us in this bird is, that its face is entirely white, contrasted by a black veil that covers the head, and, including the fore side and the top of the neck, falls behind: the wing and tail are blackish;

the

the rest of the plumage is finely interwoven with waves and festoons of blackish, rusty and rufous, of which the tint, deeper on the back, runs into a brick red colour on the breast and the lower part of the neck. This Duck, which is found at Maragnon, is larger and more corpulent than our wild duck.

The MAREC and MARECA, BRAZILIAN DUCKS.

1. *Anas Bahamensis*. Linn. Gmel. Briss. and Klein.
The Ilatbera Duck. Catesby, Penn. and Lath.
2. *Anas Brasiliensis*. Gmel. Ray, Will. and Briss.
The Mareca Duck. Lath.

MARECA is, according to Piso, the generic name of the Ducks in Brazil; and Marcgrave applies it to two species, which seem not far removed from each other; and for this reason we place them together, distinguishing them however by the names of *Marec* and *Mareca*. The first, says this naturalist, is a duck of small size, with a brown bill, and a red or orange spot on each corner; the throat and the cheeks are white, the tail gray, the wing decorated with a green spangle and a black border. Catesby, who has described the same bird at

Bahama, says, that this spangle on the wing is edged with yellow; but the name of *Babama duck*, used by Brisson, is the less founded, as Catesby expressly remarks, that it appears there very seldom, having never seen any except the subject which he describes.

The Mareca, Marcgrave's second species, is of the same size with the other, and its bill and tail are black; a spangle shines with green and blue on the wing, on a brown ground; a spot of yellowish white is placed, as in the other, between the corner of the bill and the eye; the legs are vermilion, which, even after cooking, tinges with a fine red. The flesh of this last is, he adds, somewhat bitter; that of the former is excellent, yet the savages seldom eat it, fearing, they say, that feeding on an animal that appears unwieldy, they should become themselves less fit for running*.

* Coreal, *Voyage aux Indes Orientales, Paris, 1722.*

[A] Specific character of the Mareca Duck, *Anas Brasiliensis*: "It is brown, below glossy cinereous; an ochry-white spot between the bill and the eyes; its chin white; its tail wedge-shaped and black."—Specific character of the Hathera Duck, *Anas Bahamensis*: "It is gray; its bill lead-coloured; a fulvous spot on its side, a green and yellow spot on its wings." It perches on trees, and does not migrate into the north.

The SARCELLES.

THE form which nature has the most shaded, varied, and multiplied in the water-fowls, is that of the duck. After the great number of species in that *genus* which we have enumerated, comes a subordinate *genus*, almost as extensive as the primary one, and which seems to present the same subjects on a smaller scale. This secondary kind is that of the *Sarcelles*, which we cannot better paint in general terms than by saying, that they are ducks much smaller than the others. But the analogy obtains not only in their natural habits, their structure, and the proportions of their form*; but also in the disposition of their plumage, and even in the great difference of colour that takes place between the males and the females.

The *Sarcelles* were often served up at the Roman tables†: they were so much esteemed, that pains was taken to rear them, like ducks, in the domestic state‡. We should, no doubt,

* Belon.

† *Idem*.

‡ *Nam clausæ pascuntur, Anates, Querquedula, Boschides, Phalarides, similesque volucres quæ stagna & paludes rimantur. Columella, de Re Rustica.*

succeed

succeed also; but the ancients apparently employed more care on their poultry-yards, and in general bestowed much greater attention than we to rural œconomy and agriculture.

We proceed to describe the different species of Sarcelles, some of which, like certain ducks, have spread to the extremities of both continents *.

The COMMON SARCELLE.

FIRST SPECIES.

Anas Querquedula. Linn. and Gmel.

Querquedula. Gefner, Klein. Briff,

Boscas. Gefner.

The Garganey. Will. Penn. and Lath. †

ITs figure is that of a little duck, its size that of a partridge; the plumage of the male, though inferior in the brilliancy of its colours to

* In the plains of Chili, according to Frezier.—On the coast of Diemen's land. *Cook*.—In the bay of Cape Holland, at Magellan's Straits. *Wallis*.—In great plenty at Port Egmont. *Byron*.

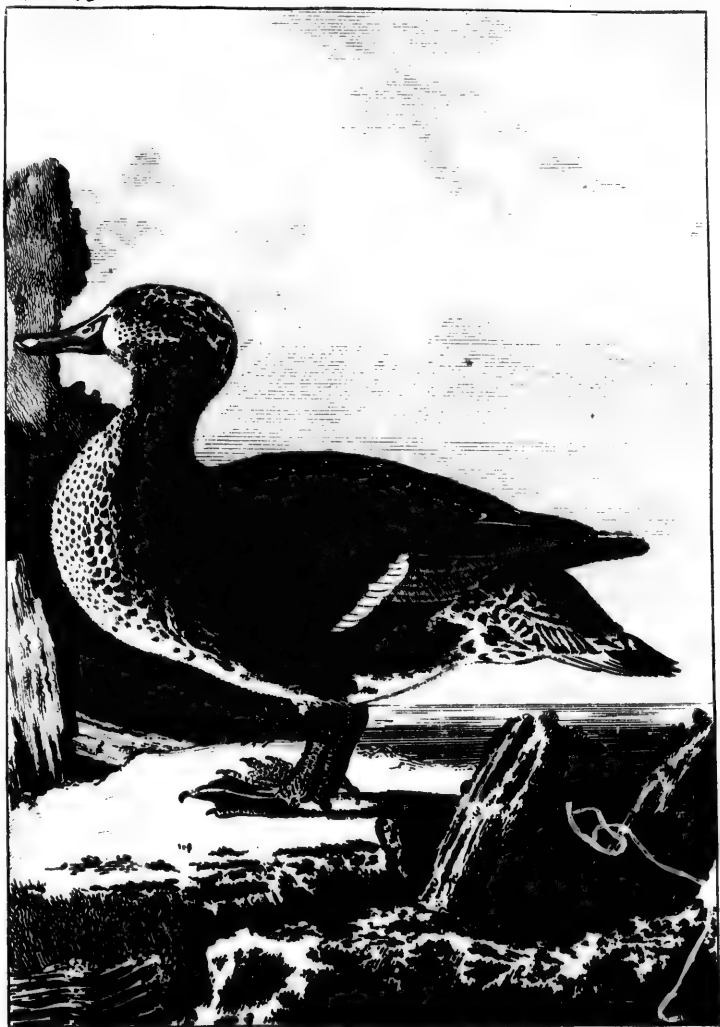
† In Greek *Boscas*, which Charleton derives from *Bosca*, *the pasture*; M. de Buffon objects, that this appellation is not characteristic, for all ducks may be said to pasture. The modern Greeks apply the name *pappi* to all the different species of ducks. In Italian this bird is called *Sarcella*, *Cercedula*, *Cercevole*, *Garganello*: in Spanish *Cerceta*: in German *Murentlein* (*mumbler*), *Mistlenle*

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THE MALE GARGANEY.

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THE FEMALE GARGANEY.

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to that of the drake, is no less rich in agreeable reflections, which it would be impossible to describe. The fore side of the body presents a beautiful breast-plate woven with black or gray, and, as it were, mailed with little truncated squares, inclosed in larger, and all disposed with so much neatness and elegance, that the most charming effect is produced. The sides of the neck and the cheeks, as far as under the eyes, are worked with small streaks of white, vermiculated on a rufous ground: the upper side of the head is black, and also the throat; but a long white streak, extending from over the eye, falls below the nape: long feathers, drawn to a point, cover the shoulders, and recline on the wing in white and black stripes; the coverts which rest on the wings are decorated with a little green spangle: the flanks and the rump exhibit hatches of blackish-gray on white-gray, and are speckled as agreeably as the rest of the body.

The attire of the female is much simpler: clothed entirely with gray and dun-gray, it hardly shows some traces of waves or festoons

gentle (middle duck), Scheekicht-endlin (thievish-duck): in Low Dutch Crak-kafona; and in some parts, as in the neighbourhood of Strasburg, Kernell, according to Gesner: in Norwegian Krak-and: in Russian Tcbirka. At Madagascar, it is called Sirire. In some provinces of France Garfotte, according to Belon; in others Hal-bran; in the Orleanois, Champagne, and Lorraine, Arcanette; in the Milanese, and in Picardy, Garganey.

on its garb. It has no black on the throat *, like the male ; and in general there is so much difference between the sexes in the Sarcelles, as in the ducks, that inexperienced sportsmen mistake them, and apply the improper names *tiers*, *racannettes*, *mercannetes*. In short, naturalists ought on this, as on other occasions, to beware of false appellations, and not to multiply species from the mere difference of the colours which are found in these birds ; it would even be very useful, to prevent error, that both the male and female be figured in their true colours.

In the pairing season, the male utters a cry like that of the rail ; yet the female seldom makes her nest in our provinces †, and almost all these birds leave us before the 15th or 20th of April ‡. They fly in bands in the time of their migrations, without preserving, like the ducks, any regular order : they take their flight from above the water, and proceed with great rapidity.

* *Fauna Suecica*.—" There is as much difference between the male and the female of the Sarcelle as between the ducks and the drakes. . . . Generally the females are gray round the neck, and yellowish below the belly ; brown on the back, the wings, and the rump." *Belon*.

† Salerne says, that he never saw its nest in that part of the Orleanois where he observed.

‡ As the Sarcelle seldom appears but in winter, Schwenckfeld thence derives its name ; *Querquedula, quoniam querquero, id est frigidis & hyemali tempore, maxime apparet*. [Varro says, that it is a sort of diminutive from the Greek *Κρηνη*, which signifies a weaver's shuttle ; on account either of its rapid flight or its whistling voice. —*T.*]

They

They do not often bathe, but find their proper food on the surface of the lakes, or near the margin: flies, and the seeds of aquatic plants, are what they prefer.

Gesner found in their stomach little stones mixed with these aliments; and Frisch, who kept two months a couple of these birds taken young, has given us the following detail of their mode of living in this sort of incipient domestication: "I presented first to these Sarcelles," he says, "different seeds, and they would touch
 " none; but scarce had I set beside their water-
 " trough a bason, filled with millet, than they
 " both ran to it. At every bill-full which they
 " took, each went to the water, and they car-
 " ried as much of it in a short time as com-
 " pletely to soak the millet. Yet the grain was
 " not moistened sufficiently to their mind, and
 " I saw my Sarcelles busy themselves in carry-
 " ing millet and water to the ground of their
 " pen, which was of clay, and when the bottom
 " was softened and tempered enough, they began
 " to dabble, and made a pretty deep cavity, in
 " which they ate their millet mixed with earth.
 " I put them in a room, and they carried, in the
 " same way, though to little purpose, the millet
 " and water to the deal-floor. I led them on the
 " grass, and they seemed to do nothing but dig
 " for seeds, without eating the blades, or
 " even earth-worms. They pursued flies and
 " snapped them like ducks. When I delayed
 " to

“ to give them their accustomed food, they
 “ called for it with a feeble hoarse cry, *quoak*,
 “ repeated every minute. In the evening they
 “ lay in the corners, and even during the day,
 “ when a person went near them, they hid them-
 “ selves in the narrowest holes. They lived thus
 “ till the approach of winter, but when the se-
 “ vere cold set in, they died suddenly.”

[A] Specific character of the Garganey, *Anas Querquedula*:
 “ It has a green spot on the wings, and a white line above the
 “ eyes.

The LITTLE SARCELLE.

SECOND SPECIES.

Anas Cretea. Linn. and Gmel.

Phascas. Gesner.

Querquedula. Id.

Querquedula Major. Johnst.

Querquedula Minor. Briss.

Pepatzca. Fernandez.

The Common Teal. Ray, Penn. and Lath. *

THIS Sarcelle is smaller than the first, and
 differs besides by the colours of its head,
 which is rufous, and striped with a broad streak

* In German *Trössel*, *Kriech-enten* (crawl-duck) *Kruk-entle*
 (crutch-duck) *Graw-entlin* (gray-duck); and the female *Brunn-*
kappicht-entlin (brown-headed duck): in Swiss *Mour-entle*, *Sor-entle*:
Söke: in Polish *Cyranka*: in Swedish *Arta*, *Kracka*: in Danish
Krik-ard: in Norwegian *Hestelort-and*: in Dutch *Taling*: in
 Mexican *Pepatzca*.

of

of green edged with white, that extends from the eyes to the occiput: the rest of the plumage is pretty much like that of the common sarcelle or garganey, except that its breast is not richly mailed, but only speckled.

This little Sarcelle breeds on our pools, and continues in the country the whole year. It conceals its nest among the large bulrushes, and builds it with their stalks, their pith, and with a heap of feathers: this nest, constructed with much care, is pretty wide, and rests on the surface of the water, so as to rise and fall with it. The eggs amount to ten or twelve, and are about the size of a pigeon's; they are dirty white, with hazel-spots. The females take the whole management of the incubation; the males seem to leave them and associate together during that time, but in autumn they return to their families. The teals are seen on the pools in clusters of ten or twelve; and in winter they resort to the rivers and unfrozen springs; there they live on cresses and wild chervil. On pools they eat the rush-seeds, and catch small fish.

They fly very swiftly; their cry is a sort of whistle, *vouire, vouire*, which is heard on the pools as early as the month of March. Hebert assures us, that this little Sarcelle is as common in Brie as the other is rare, and that great numbers are killed in that province. According to Rzaczynski, they are caught in Poland by means of

of nets stretched from one tree to another; the Teals throw themselves into these nets as they rise from the pools about the dusk of the evening.

Ray, from the name, *the Common Teal*, which he bestows on our little Sarcelle, seems not to have known the common Sarcelle: Belon, on the contrary, was acquainted with no other; and though he applies to it indiscriminately the two Greek names *boscas* and *phascas*, the latter seems to have referred peculiarly to the little Sarcelle; for Athenæus says, that the *phascas* is larger than the little *colymbis*, which is the little grebe. This species has obtained a communication with the new world by way of the north; since it is evidently the *pepatzæa* of Fernandez, and several that we have received from Louisiana differ not from those of Europe.

[A] Specific character of the Common Teal, *Anas Cræca*: "It has a green spangle on the wings, and a white line above and below the eyes." It is found as far north as Greenland, where it lays from thirteen to nineteen eggs. The teals of America are not so prolific.

The SUMMER SARCELLE.

THIRD SPECIES.

Anas Circia. Linn. and Gmel.

Querquedula Esfiva. Briss.

The Summer Teal. Will. Alb. and Lath.*

WE should have classed this species with the preceding, if Ray, who appears to have examined both, had not separated them; and we can only copy his account of the bird. "It is," says he, "somewhat smaller than the common teal, and is, without exception, the least of the whole genus; its bill is black; all its mantle brown cinereous, with the tips of the feathers white on the back; on the wing is a bar about the breadth of a finger, black, with reflections of emerald-green, and edged with white; all the fore side of the body is white washed with yellowish, spotted with black on the breast and the lower belly; the tail is pointed; the legs are blueish, and their webs black."

M. Baillon has sent me some notes on a *Summer Sarcelle*, by which he means the little

* In German *Birckilgen*.

Sarcelle of the preceding article, and not the Summer Teal described by Ray ; but we cannot forbear inserting his observations, which are important.

“ We here (at *Montreuil-sur-mer*) call the
“ Summer Sarcelle *criquard* or *criquet* ; this
“ bird is well made, and has much grace ; its
“ form is rounder than that of the com-
“ mon farcelle or garganey ; it is also more
“ decorated, its colours are more varied and
“ better contrasted ; it has sometimes little blue
“ feathers, which are not seen but when the
“ wings are opened. Few water-birds are so
“ chearful and sprightly as this Sarcelle ; it is
“ almost continually in motion, and bathes in-
“ cessantly : it is very easily tamed ; I kept
“ some several years in my court, and I still
“ have two which are very familiar.

“ These handsome Sarcelles join to all their
“ qualities an extreme gentleness. I never saw
“ them fight either among themselves or with
“ other birds : they make no defence even when
“ attacked. As delicate as they are gentle, the
“ least accident hurts them ; the agitation into
“ which they are thrown if chased by a dog, is
“ sufficient to occasion their death : when they
“ cannot escape by the aid of their wings, they
“ remain extended on the spot, exhausted and
“ expiring. Their food is bread, barley, wheat,
“ and bran : they also catch flies, earth-worms,
“ slugs, and insects.

“ They

“ They arrive on our marshes that lie near
“ the coast, about the first days of March: I
“ believe that the south wind brings them. They
“ do not keep in flocks, like the other Sarcelles
“ and the whistlers. They are seen roving on
“ all sides, and they pair soon after their arrival.
“ In April they seek, in slimy spots scarce ac-
“ cessible, large tufts of rushes, or herbs, very
“ close, and somewhat raised above the level of
“ the marsh. They obtain a lodgment by re-
“ moving the stalks that encumber them, and
“ by continual treading they form a little cavity,
“ four or five inches in diameter, of which they
“ line the bottom with dry herbs: the top is
“ well covered by the thickness of rushes, and
“ the entrance is hid by the stalks which were
“ laid there; this entrance, for the most part,
“ faces the south. The female deposits from
“ ten to fourteen eggs of a white somewhat tar-
“ nished, and almost as large as pullets' eggs. I
“ discovered that the time of incubation is, as in
“ hens, from twenty-one to twenty-three days.

“ The young are hatched covered with down,
“ like the ducklings: they are very alert, and, a
“ few days after birth, they are conducted by
“ their parents to the water. They seek worms
“ under the grass and in the mud. If any rave-
“ nous bird chance to pass, the mother makes a
“ faint cry, and the whole family squats, and re-
“ mains motionless till another cry recalls them
“ to their activity.

" Their first feathers are gray, like those of
 " the females. It is then very difficult to dis-
 " tinguish the sexes, nor is the difficulty remov-
 " ed till the love-season; for it is a fact peculiar
 " to this bird, which I have frequently had an
 " opportunity of verifying, and which I shall
 " here relate:—I commonly procured these Sar-
 " celles about the beginning of March; at that
 " time the males were arrayed in their most
 " beautiful feathers; the season of moulting ar-
 " rived, they became as gray as the females, and
 " continued in that state till the month of Ja-
 " nuary; in the space of a month their feathers
 " assumed another tinge. The present year I
 " have again admired this change; the male
 " which I have now is as beautiful as it can be,
 " and I saw it as gray as the female. It would
 " seem that nature has attired it for the season
 " of love.

" This bird is not a native of the northern
 " countries; it is sensible to cold. Those which
 " I had retired regularly to sleep in the hen-
 " house, and kept themselves in the sun or near
 " the kitchen-fire. They all died of accidents,
 " most of them from the pecks which they re-
 " ceived from stronger birds. However, I have
 " reason to believe that they do not live long,
 " since their full growth is completed in two
 " months, or thereabout."

[A] Specific character of the Summer Teal, *Anas Circia*:
 " The spangle on its wing is of a various colour; there is a white
 " line

"line above the eye-brows; its bill and legs are cinereous." This Teal inhabits the lakes and rivers of Europe, and the Caspian sea. It is not migratory. Linnaeus says, that it hatches in from thirty to thirty-three days.

The EGYPTIAN SARCELLE.

FOURTH SPECIES.

Anas Africana. Gmel.
The African Teal. Lath.

THIS Sarcelle is nearly as large as the garganey; but its bill is rather larger and broader: its head, neck, and breast, are of a rufous brown, glowing and intense; all its mantle is black; there is a streak of white on the wing; the stomach is white, and the belly is of the same rufous brown with the breast.

The female in this species has nearly the same colours as the male, only they are not so deep, or so finely contrasted; the white of the stomach is interspersed with brown waves, and the colours of the head and breast are rather brown than rufous. We have been assured that this Sarcelle was found in Egypt.

The MADAGASCAR SARCELLE.

FIFTH SPECIES.

Anas Madagascariensis. Gmel.
The Madagascar Teal. Lath.

THIS Sarcelle is nearly the size of the common teal; but its head and bill are smaller. The character which distinguishes it best is a broad spot of pale-green or water-green, placed behind the ear, and inclosed with black, which covers the back of the head and the neck; the face and the throat are white; the lower part of the neck, as far as the breast, is handsomely worked with little brown fringes in rufous and white; this last colour covers the fore side of the body; the back and the tail are tinged and glossed with green on a black or blackish ground. This Sarcelle was sent to us from Madagascar.

THE COROMANDEL SARCELLE.

SIXTH SPECIES.

Anas Coromandeliana. Gmel.

The Coromandel Teal. Lath.

THIS bird is smaller than the garganey. The plumage consists of white and dark brown: white predominates on the fore side of the body; it is pure in the male, and mixed with gray in the female: the dark brown forms a cowl on the head, stains all the mantle, and marks the neck of the male with spots and speckles, and the lower part of the neck of the female with little transverse waves; also the wing of the male shines, on its blackish tint, with a green and reddish reflection.

The JAVA SARCELLE.

SEVENTH SPECIES.

Anas Falcaria, var. Gmel.

The Falcated Duck, var. Penn. and Lath.

THE plumage of this Sarcelle, on the fore side of the body, on the top of the back, and on the tail, is richly worked with black and white festoons; the mantle is brown; the throat is white; the head is enveloped in a fine purple violet, with a green reflection on the feathers of the occiput, which extend to the nape, and seem parted in shape of a bunch: the violet tint re-commences under this little tuft, and forms a broad spot on the sides of the neck; it marks a similar one, accompanied with two white spots, on the feathers of the wing next the body. This Sarcelle was brought to us from the island of Java; it is as large as the garganey.

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THE CHINESE GARGANEY

The CHINESE SARCELLE.

E I G H T H S P E C I E S.

Anas Galericulata. Linn. and Gmel.

Querquedula Sinensis. Briss.

Querquedula Indica. Aldrov.

Anas Sinensis. Klein.

The Chinese Teal. Lath.

THIS beautiful Teal is very remarkable for the richness and the singularity of its plumage: it is painted with the most vivid colours, and adorned on the head with a magnificent green and purple bunch, which extends beyond the nape; the neck and the sides of the face are enriched with narrow and pointed feathers of an orange red; the throat is white, and also the part above the eyes; the breast is of a purple or wine rufous; the flanks are pleasantly worked with little black fringes, and the quills of the wings are elegantly bordered with white streaks: to these beauties, add a remarkable singularity, that two feathers, one on each side, between those of the wing next the body, have on the outside of their shaft webs of an uncommon length, of a beautiful orange rufous, fringed with white and black on the edge, which form, as it were,

were, two fans or two broad papilionaceous wings raised on the back : these two singular feathers distinguish sufficiently this Sarcelle from all the others, besides the beautiful crest which usually floats on its head, but which it can erect. The beautiful colours of this bird have struck the eyes of the Chinese : they have painted it on their porcelain and their finest paper. The female, which they have also delineated, appears uniformly in a brown suit ; and this is indeed its colour, with some mixture of white. In both sexes, the bill and the legs are red.

This beautiful Sarcelle is found in Japan as well as in China ; for we may perceive it to be the *kimnodfui**, of whose beauty Kæmpfer speaks with admiration : and Aldrovandus relates, that the ambassadors, who came in his time from Japan to Rome, brought, among other rarities of their country, figures of that bird.

• “ There is (in Japan) a sort of duck which I cannot help speaking of, because of the remarkable beauty of the male, called “ *kimnodfui* ; it is so exquisite, that when its picture was shown to “ me, I could not believe it to be a faithful likeness, till I saw the “ bird itself, which is pretty common. Its feathers form a shade of “ the most beautiful colours imaginable ; but red predominates “ about the neck and the throat ; its head is crowned with a magnificent tuft ; its tail, which rises obliquely, and its wings, which “ are placed on the back in a singular fashion, exhibit to the eye an “ object as singular as it is extraordinary.” *Natural History of Japan.*

The FEROE SARCELLE*.

NINTH SPECIES.

Querquedula Ferroensis. Briss.

THIS Sarcelle, which is somewhat smaller than the garganey, has all its plumage of an uniform white gray on the whole side of the body, of the neck and of the head; only it is slightly spotted with blackish behind the eyes, and also on the throat and the sides of the breast: all the mantle, with the upper surface of the head and of the neck, is of a dull blackish, without any reflections.

ALL the preceding species of Sarcelles are inhabitants of the ancient continent; those which we are now to describe belong to the new: and though the same species of water-fowl are often common to both worlds, yet each of the species of Sarcelles seems to be appropriated to the one or other continent, except the garganey and the teal, which are found in both.

* Called *Oedel* in the island of Feroe, according to Briffon.



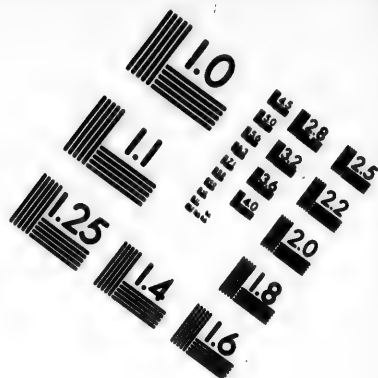
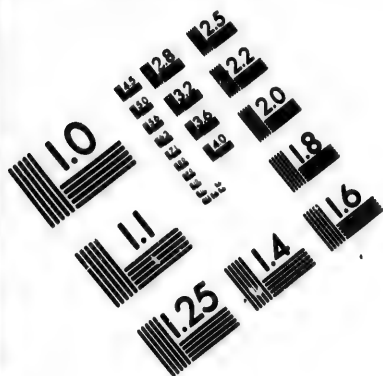
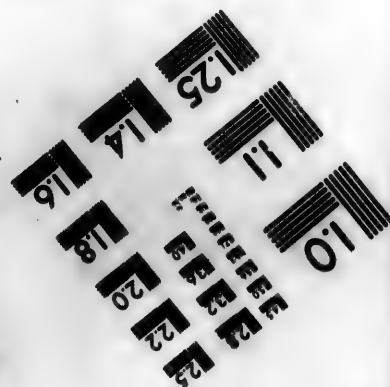
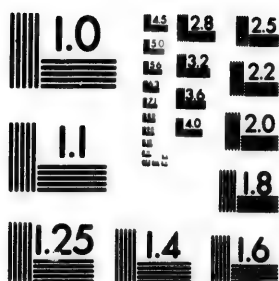


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The SOUCROUROU SARCELLE.

TENTH SPECIES.

Anas Discors. Linn. and Gmel.*Querquedula Americana.* Briss.*Querquedula Minor Varia.* Barrere.*Anas Querquedula Americana Variegata.* Klein.*The White-faced Teal.* Catesby.*The White-faced Duck.* Penn. and Lath.

THIS species is common in Cayenne, where it is called *Soucrourou*. It is nearly the size of the garganey: the male is richly festooned and waved on the back; the neck, the breast, and all the fore side of the body, are spotted with blackish on a rusty brown ground; on the top of the wing is a beautiful plate of light blue, below which is a white streak, and then a green spangle; there is also a broad streak of white on the cheeks; the upper side of the head is blackish, with green and purple reflections: the female is quite brown.

These birds are found in Carolina, and probably in many other parts of America. Their flesh is, according to Barrere, delicate and well tasted.

[A] Specific character of the *Anas Discors*: "The coverts of its wings are blue; its secondary wing-quills are green on the outside; there is a white bar on the front."

The SOUCROURETTE SARCELLE.

ELEVENTH SPECIES.

Anas Discors, var. Gmel.

Querquedula Virginiana (fœmina). Briff.

Anas Quacula. Klein.

The Blue-winged Teal. Catesby and Lath.

THOUGH the Cayenne Sarcelle represented in our *Planches Enluménées* is smaller-sized than Catesby's *Blue-winged Teal*, the great resemblance in their colours induces us to regard them as the same species; and we are much inclined to class both with the preceding, and have therefore adopted a similar name. The *Soucrourette* has on the shoulder a blue plate with a white zone below, and then a green spangle, exactly as in the *soucrourou*: the rest of the body, and the head, are covered with spots of brown-gray, waved with white-gray. Catesby's figure does not show this mixture, but presents a brown colour, spread too uniformly, that would suit the female, which, according to him, is entirely brown. He adds, that these birds come in great numbers to Carolina in the month of August, and remain there till the middle of October, at which time they gather rice in the fields, being very fond of that grain. In Virginia, he says, where there is no rice, they eat a sort of wild oats that grow in the

the swamps. When fed in either of these ways, they become extremely fat, and their flesh acquires an exquisite relish *.

The SPINOUS-TAILED SARCELLE.

TWELFTH SPECIES.

Anas Spinosa. Gmel.

The Spinous-tailed Teal. Lath.

THIS species of Sarcelle, which is a native of Guiana, is distinguished from all the others by the tail-feathers, which are longer, and terminated by a little stiff filament like a spine, formed by the point of the shaft, produced a line or two beyond the webs of these feathers, which are blackish brown. The plumage of the body is unvaried, consisting of waves or blackish spots, deeper on the upper surface, lighter on the under, and festooned with white-gray in a rusty or yellowish ground: the top of the head is blackish, and two streaks of the same colour, parted by two white streaks, pass, the one as high as the eye, the other lower on the cheek; the quills of the wing are also blackish. This Sarcelle is scarcely eleven or twelve inches long.

* Mr. Latham, after Brisson, reckons this to be the female of the preceding.—7.

The LONG-TAILED RU- FOUS SARCELLE.

THIRTEENTH SPECIES.

Anas Dominica. Gmel.
Querquedula Dominicensis. Briss.
Chilcanaubtli. Fernandez.
Colcanaubtli (fem). Id.
The St. Domingo Teal. Lath.

THIS is somewhat larger than the preceding, and differs much in its colours: it has however the character of the long tail, with the quills terminating in a point, though the unwebbed shaft is not so nicely defined. We will not venture to class these two species together, but we conceive them to be related. The upper side of the head, the face, and the tail, are blackish; the wing is of the same colour, with some blue and green reflections, and has a white spot; the neck is of a fine chestnut-rufous; the flanks are of the same colour; and the upper surface of the body is waved with it on blackish.

This Sarcelle was sent to us from Guadaloupe. Briffon received one from St. Domingo, and refers it, with the utmost probability, to the *chilcanaubtli* of New Spain, described by Fernandez, who seems to denominate the female of the same species *colcanaubtli*.

The WHITE AND BLACK SARCELLE; or, the NUN.

FOURTEENTH SPECIES.

Anas Albeola. Linn. and Gmel.

Querquedula Ludoviciana. Briss.

The Little Black and White Duck. Edw.

The Spirit Duck. Penn.

A WHITE robe, a white band with a black cap and mantle, have procured this Louisiane Sarcelle the name of Nun (*Religieuse*). It is nearly as large as the garganey. The black of its head is decorated with green and purple lustre, and the white band encircles it behind from the eyes. "The Newfoundland fishers," says Edwards, "call this bird *Spirit*, I know not for what reason, unless because it is a very nimble diver: the instant after it has plunged, it appears again at a very great distance; a power which might recall to the imagination of the vulgar the fantastic ideas of apparitions."

[A] Specific character of the Spirit, *Anas Albeola*: "It is white; its back and wing-quills are black; its head blueish, and the back of the head white." It extends over the whole of North America. It nestles in trees, near fresh water.

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The MEXICAN SARCELLE.

FIFTEENTH SPECIES.

Anas Novæ Hispaniæ. Gmel.

Querquedula Mexicana. Briss.

Toltecoloctli, seu Metzcanauhtli. Fernandez.

The Mexican Duck. Lath.

FERNANDEZ gives this Sarcelle the Mexican name *Metzcanabachtli*, or *Metzcanauhtli*, which signifies, he says, *moon-bird*; because it is hunted by moon-light. He adds, that it is one of the most beautiful species of the genus: almost its whole plumage is white, dotted with black, especially on the breast; the wings exhibit a mixture of blue, of green, of fulvous, of black and white; the head is blackish brown, with varying colours; the tail is blue below, blackish above, and terminated with white: there is a black spot between the eyes and the bill, which is black below and blue above.

The female, as in all the species of this genus, differs from the male by its colours, which are not so distinct and vivid. The epithet which Fernandez gives it, *avis stertrix junceti*, seems to imply that it clears away or cuts the rushes, to form or place its nest.

The CAROLINA SARCELLE.

SIXTEENTH SPECIES.

Anas Russica. Linn.*Querquedula Carolinensis.* Briss.*The Little Brown Duck.* Lath.

THIS Sarcelle is found in Carolina, near the mouths of rivers, where the water begins to taste saltish. The plumage of the male is broken with black and white, like a magpie. The female, which Catesby describes at greater length, has its breast and belly of a light gray; all the upper side of the body and of the wings is deep brown; there is a white spot on each side of the head behind the eye, and another on the lower part of the wing. It is evident that Catesby gave it the appellation of the *little brown duck* from the garb of the female: he had better called it *the magpie-teal*, or *the black and white teal*.

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The BROWN AND WHITE SARCELLE.

SEVENTEENTH SPECIES.

Anas Minuta. Linn.

Querquedula Freti Hudsonis. Briss.

The Little Brown and White Duck. Edw.

THIS bird, though called a duck by Edwards, ought to be ranged among the Sarcelles, since it has nearly the size and figure of the first species, the garganey: but the colour of its plumage is different; it is entirely of dark brown on the head, the neck, and the quills of the wing. The deep brown dilutes into whitish on the fore part of the body, which is besides striped across with brown lines: there is a white spot on the sides of the head, and a similar one on the corner of the bill. This Sarcelle dreads not the most intense cold, since it is one of those which inhabit the bottom of Hudson's Bay*.

* Teals are reckoned among the number of birds that are seen to pass in the spring at Hudson's Bay, on their way to breed in the north. *Hist. Gen. des Voy.* tom. xv. p. 267.

SPECIES WHICH ARE RELATED TO THE DUCKS AND SARCELLES.

AFTER the description and history of the species well known and discriminated, it remains to indicate those to which the following accounts seem to refer; in order that observers and travellers may discover to what preceding species each belongs; or, if different, to delineate the new species.

I. We must mention the ducks commonly called *four wings*, of which the Collection of the Academy speaks in these terms. "About 1680, "appeared in the Boulonois a kind of ducks, "which had their wings turned differently from "others, the great feathers parting from the "body and projecting out: which has occasioned "the people to say, and believe, that they have "four wings." (*Collect. Acad. Part. Etr. tom. i. p. 304*). We conceive that this character might be accidental, from the bare comparison of the preceding passage with the following. "M. "l'Abbé Nollet saw in Italy a flock of geese, "among which were many that seemed to have "four wings: but this appearance, which took "place only when the bird flew, was caused by "the inversion of the last portion of the wing, "which kept the great feathers elevated instead "of lying flat along the body. These ducks

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"came from the same hatch with the rest which
 "carried their wings as usual; and neither of
 "their parents had its pinions folded back."

Histoire de l'Academie, 1750, p. 7.

Thus these ducks, like the four-winged geese, must not be considered as peculiar species, but as accidental and even individual varieties, which may occur in any kind of birds.

II. The duck, or rather the very little teal, mentioned by Rzaczynski in the following passage: *Lithuania Polesia alit anates innumeras, inter quas . . . sunt . . . in cavis arborum natæ, molem sturni non excedentes* (*Hist.* p. 269.) [Polish Lithuania maintains ducks innumerable, among which . . . are . . . that breed in the hollows of trees, and exceed not the bulk of a stare.] If this author is accurate with regard to the size, which he makes to be so diminutive, we must confess that the species is unknown to us.

III. The white-headed Barbary duck of Dr. Shaw, which is not the same with the musk duck, but ought rather to be classed with the Sarcelles, since it is only, he says, of the *size of the lapwing*: it has a broad, thick, blue bill; its head entirely white, and its body flame-coloured.

IV. The *anas platyrinchos* of the same author, who calls it the *Barbary pelican*, improperly, since nothing can be further from a pelican than a duck. This is smaller than the preceding: its legs are red; its bill flat, broad, black, and indented; its

breast, belly, and head are flame-coloured; its back is of a deeper cast; and there are spots on the wing, a blue, a white, and a green.

V. The species which this traveller, with equal inaccuracy, denominates *the little-billed Barbary pelican*. "It is," says he, "somewhat larger than the preceding; its neck is reddish, and its head is adorned with a little tuft of tawny feathers; its bill is entirely white, and its back variegated with a number of white and black stripes; the feathers of the tail are pointed, and the wings are each marked with two contiguous spots, the one black and the other white; the extremity of the bill is black, and the legs are of a deeper blue than those of the lapwing." This species appears to us much a-kin to the foregoing.

VI. The *turpan*, or *tourpan*, a Siberian duck, found by Gmelin in the vicinity of Selinginski, of which he has given an account too short for recognizing the bird*. It appears, however, that this same duck is found in Kamtschatka, and is even common to Ochotsk, where, at the mouth of the river Ochotska, multitudes are

* "In the neighbourhood of Selinginsk, we found a small lake, whose sides were covered with swans, *geese*, *tourpans*, and snipes: I cannot express the satisfaction which the sight of these birds begat; their song, inspired by nature, was as pleasing as the imitation with instruments would be disagreeable. The tones of the *tourpans* resemble much those of an hautbois; and, in this concert of birds, they performed nearly the part of the bass. This bird is a kind of duck; its plumage is fox-red, except the tail and the wings, which have a great mixture of black." Gmelin.

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caught in boats, as described by Kracheninikoff. We shall remark, with regard to this traveller, that he mentions his meeting with eleven species of ducks and sarcelles at Kamtschatka; in which we can only ascertain the turpan, and the long-tailed duck of Newfoundland: the nine remaining are called, according to him, *felosni*, *tchirki*, *krobali*, *gogoli*, *lutki*, *tcherneti*, *pulonosi*, *suasi*, and the mountain duck. "The four first," says he, "pass the winter near fountains; the rest arrive in spring, and retire in autumn, like the geese." We may presume, that many of these species might be referred to those which we have described, had this observer told us any thing more than their names.

VII. The little duck of the Philippines, called at Luçon the *saloyazir*, and which, according to Camel, being not larger than the hand, should be regarded as a sarcelle.

VIII. The *woures-feique*, or *hatchet-bird* of Madagascar, a sort of duck, so called by the islanders, says Francis Cauche, because it has on its front an excrescence of black flesh, which is round, and extends, bending back a little on their bill, like their hatchets. This traveller adds, that this species is of the size of our goslings, and of the plumage of our ducks. We will add, that it is perhaps only a variety*.

IX.

* Flacourt names three or four kinds of teals, or *foire*, which, he says, occur in Madagascar:—*Tabie*; its cry seems to articulate this name;

IX. The two species of ducks, and the two farcelles, seen by Bougainville at the Malouine or Falkland Islands, of which he says, that the first differ not much from those of our countries, adding, however, that he killed some which were entirely black, and others entirely white. With regard to the farcelles, "the one," says he, "is of *the size of the duck*, with its bill blue; "the other is much smaller, and of the latter "are some whose ventral feathers are *tinged with carnation*." These birds are very plentiful in these islands, and are well tasted.

X. The ducks of the Straits of Magellan*, name; its wings, its bill, and its legs, are red: *Halive*, has its bill and legs red: *Hach*, has its plumage gray, and its wings striped with green and white: *Tatab*, is a kind of halive, but smaller.

* "The ducks (at Magellan's Straits) are considerably different from ours, and much inferior; they are pretty numerous, "and possess a particular district in the island, upon the lofty rocks, "out of the reach of musket-shot. I never in my life saw so much "art and industry in animals void of reason; they are so arranged "on the heights, that the greatest geometer could not distribute the "space to better advantage; all the districts are divided by little "paths, no broader than to allow a bird to walk; the ground on "which the nests are placed is smoothed, as if it were levelled by "the hand of man; the nests are formed of kneaded earth, and "seem as if they were cast upon the same mould; the ducks carry "water in their bill, with which they make a mortar of clay, and "fashion it into a round shape, as well as with a pair of compasses; "the bottom is a foot broad, the mouth eight inches wide, and of "an equal height; they are all alike with respect to form and proportions: these nests serve them more than a year, and their eggs "are hatched, I believe, in the sun. We could not find, in the whole "place, a single stalk of grass, or straw, or feathers, or birds' dung; "the whole was as clean and neat, both in the nests and the paths, "as if it had been newly washed and swept." *Hist. des Navigations aux Terres Australes*, tom. i. p. 243.

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which, according to some navigators, construct their nests after a singular fashion, with kneaded mud, and plastered with the utmost neatness; if this account be true, which from several circumstances seems suspicious, and little to be depended on.

XI. The *painted duck* of New Zealand, so named in Captain Cook's Second Voyage, and thus described: "The largest is as big as a Muscovy duck, with a very beautiful variegated plumage, on which account we called it the painted duck; both male and female have a large white spot on each wing; the head and neck of the latter is white, but all the other feathers, as well as those on the head and neck of the drake, are of a dark variegated colour." Vol. i. pp. 96 & 97.

XII. The *soft-billed whistling duck*, otherwise called the *blue-gray duck* of New Zealand; remarkable for this property, that its bill is soft and almost cartilaginous, inasmuch that it cannot subsist but by gathering, or, so to speak, by sucking the worms which the tide leaves on the beach.

XIII. The red-combed duck, also of New Zealand, which was found only on the river at the bottom of Dusky Bay: this duck, which is only a little larger than the sarcelle, is of a very glossy dark gray on the upper side of the back, and of a deep gray foot-colour on the belly; the bill

bill and the legs are lead-coloured; it has a golden iris, and a red crest on its head.

XIV. Lastly, Fernandez gives ten species as belonging to the genus of ducks. We shall throw into notes the Mexican names *, and the descriptions,

* "*Xalcuani*, or sand-swallower.—It is a kind of wild duck, somewhat smaller than the tame; its bill moderately broad; the feathers on the under side of the body white, and those on the breast and on the upper side fulvous, but others bright white run across; the wings and the tail are greenish, variegated above with bright white, with black, and with brown, and below with white and cinereous; a green band runs from the back of the head to the eyes; the rest of the head is white, inclining to cinereous, and mixed with russet and blackish; the legs are longer in proportion than the rest of the body, of a russet-colour: This bird visits the lake." *Cap. 121. p. 39.*

"*Yacatexotli*, or blue-billed bird.—It is almost as big as the tame duck; its bill is sky-blue above, and reddish white below; the upper side of the body is fulvous, and the under side silvery black; the upper part of the wing black." *Cap. 70. p. 29.*

"*Yxtactxonyayauhqui* (different from that of p. 28.)—It is a kind of small wild duck; its bill is blue, and marked near the tip with a white spot; the legs incline also to blue; and the rest of the body is variegated with white and fulvous." *Cap. 156. p. 45.*

"*Colcanaubtlcioubt*.—It is a wild duck; the greater part of its upper side brown, and a small part whitish; its under side is white and partly brown, except the wings, which below are entirely of a bright white. The head is black and cinereous at its upper part, but inclining to a deep black, and below to cinereous." *Cap. 64. p. 28.*

"*Atapalcatl*, or water-pot.—It would be exactly like the teal, if it had not its bill twice as broad; its colour whitish and fulvous; it bites the hand angrily, but without hurting it.

"*Txonyayauhqui*, or variegated-head (*male*).—It is a wild duck that lives about the lake, and is almost as large as a tame duck: its bill is broad, above sky-blue, only marked with two spots, and
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descriptions, which are for the most part incomplete; waiting till new observations, or the inspection of the subjects themselves, enable us to complete and arrange them.

"having a small slender projection with which it bites; the under part blackish blue; the legs short and blue, sometimes mixed however with a pale colour; its head and neck thick, and of a peacock-colour at the sides, the top sometimes blacker, however; the breast is black: the sides of the belly and of the body are whitish, although black lines, running transversely, decorate the tail; a black tawny bar, three inches broad, and extending to the end of the tail, marks the back; finally, the wings are tinged promiscuously with black, fulvous, bright white, and cinereous." *Cap. 108. p. 36.*

"*Nepapanototl*.—It is a wild duck, frequent in the Mexican lake, its bill ending somewhat square; in other respects similar, except that there is no sort of colour which usually decorates the wild ducks, but falls to the share of this, and bestows on it ornament and beauty, whence is derived its name." *Cap. 127. p. 40.*

"*Opipixcan*.—It is a wild duck with a reddish bill; its thighs and its legs variegated with rufous and whitish; the rest of its body cinereous and black. *Cap. 147. p. 44.*

"*Perutototl*.—A Peruvian duck; which being already known in our world, I shall not take the trouble to describe." *Cap. 16. p. 47.*

"*Concanaubtli*.—A kind of large duck, like our *lavancos*, and which, for that reason, we have deemed it unnecessary to delineate."

The P E T R E L S.

Procellariæ of Linnæus.

OF all the marine birds, those which the most constantly live on the great seas, are the Petrels; the most strangers to the land, the most adventurous in roving on the vast ocean: they commit themselves with equal confidence and audacity to the rolling billows, the impetuous winds, and seem to brave the fury of the tempests. In the remotest portions of the globe, in every zone which navigators have visited, these birds seemed to expect their arrival, and even to have stretched beyond them into more distant and more stormy latitudes. Every where they have been seen to sport with security, and even gaiety, on that element, so terrible in its fury, which unnerves the most intrepid man: as if nature meant to demonstrate, that the instincts and faculties which she has allotted to the inferior creatures, excel the combined powers of our reason and our art.

Furnished with long wings, accommodated with palmated feet, the Petrels add to the ease and nimbleness of flying, and to the facility of swimming,

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swimming, the singular power of running and walking on the water, razing the waves in a rapid passage, their body being supported horizontally, and balanced by the wings, and their feet striking alternately and precipitately on the surface. Hence is derived the English name *Petrel*, or *Peterel*, which alludes to St. Peter's walking on the sea.

The species of the Petrels are numerous : they have all large and strong wings; yet they rise not to a great height, and commonly they raze the water in their flight. They have three toes connected by a membrane; their two lateral toes have a ledge on their outer part; their fourth toe is only a little spur that rises immediately from the heel, without joint or phalanx *.

The bill, like that of the albatross, is articulated, and seems composed of four pieces, two of which, as if they were added portions, form the extremities of the mandibles. There are also, along the upper mandible, near the head, two little tubes or flat rolls, in which the nostrils are perforated. From its general conformation, the bill would seem to be that of a ravenous bird, for it is thick, sharp, and hooked at its extremity: but this figure of the bill is not exactly the same in all the Petrels, and the difference is even such as to afford a character for the subdivision of the genus. In fact, the point of the

* Willughby calls this spur, a *little hind-toe*, not imagining that it proceeds immediately from the heel.

upper mandible alone is in many species bent into a hook; the point of the lower, on the contrary, is channelled and truncated like a spoon.—These species are the simple Petrels. In others, the points of both mandibles are sharp, reflected, and form together the hook. This difference of character has been remarked by Brisson; and we think that it ought not to be omitted or rejected, as done by Forster.—We shall denominate these species *puffin-petrels*.

All these birds, the puffins as well as the Petrels, seem to have the same instinct and common habits in hatching. They inhabit the land only during that time, which is pretty short; and, as if they were sensible of the incongruity of that residence, they hide or rather bury themselves in holes under the rocks by the sea-shore. From the bottom of these holes is heard their disagreeable voice, which would generally be taken for the croaking of a reptile*. They lay few eggs: they feed and fatten their young by disgorging into their bill the half-digested, oily substance of fish, which are their chief and almost only support. But they have a singular property, of which persons who seek their nests ought to be

* The Petrels bury themselves by thousands in holes under ground; there they rear their young, and lodge every night. *Forster's Observations*.—The woods (at New Zealand) resound with the noise of the Petrels, concealed in holes under ground, which croak like frogs, or cluck like hens. It would seem that all the Petrels make their nests usually in subterraneous cavities; for we saw the blue kind in such lodgments at Dusky Bay. *Idem*.

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well aware: when attacked, they, whether from fear, or the hope of defending themselves, discharge the oil with which their stomach is filled; they spout it in the face of the fowler; and as their nests are usually lodged on rocky shores, in the cliffs of lofty precipices, ignorance of this fact has cost some observers their lives*.

Forster remarks, that Linnæus knew little of the Petrels, since he reckons only *six species*; whereas Forster discovered himself *twelve new species* in the South Sea. It is to be wished, that this learned voyager would describe all these species: meanwhile, we can only give those which we know from other sources.

* In the General Advertiser, for June 1761, is the following remarkable account from the Isle of Mull: "A gentleman of the name of Campbell, being fowling among the rocks, and having mounted a ladder to take some birds out of their holes, was so surprized, by one of this species spurning a quantity of oil in his face, that he quitted his hold, fell down, and perished."—Smith, in his History of Kerry, mentions the same property of the stormy petrel.

The CINEREOUS PETREL.

FIRST SPECIES.

Procellaria Glacialis. Linn. and Gmel.

Procellaria Cinerea. Briss.

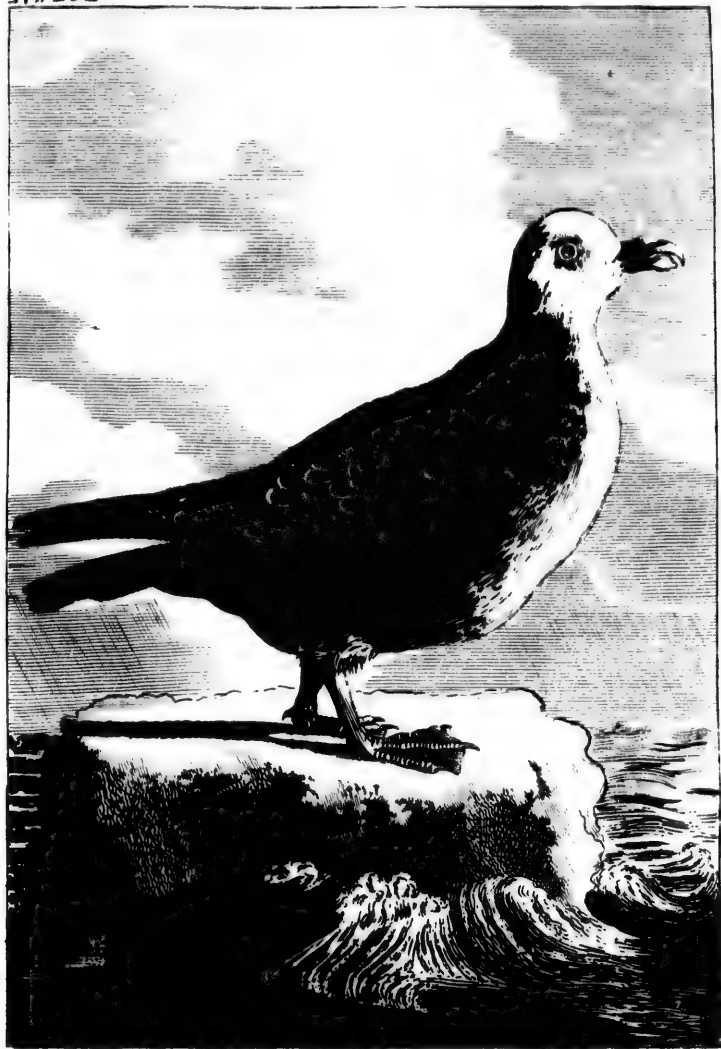
The Wagel of the Cornish. Ray.

The Fulmar Petrel. Penn. and Lath.

THIS Petrel inhabits the northern seas. Clusius compares its size to that of a middling hen: Rolandson Martin, a Swedish observer, says that it is equal in bulk to a crow. The first of these authors finds a resemblance in its port and figure to a falcon: indeed its bill, strongly jointed and much hooked, is formed for rapine; the hook of the upper mandible, and the truncated channel which terminates the under, are of a yellowish colour; and the rest of the bill, with the two tubulated nostrils, are blackish in the dead subject which we describe; but we are assured that the bill is entirely red as well as the legs in the living bird: the plumage of the body is a cinereous white; the mantle is blue cinereous, and the quills of the wing are of a deeper blue, and almost black: the feathers are very close and full, clothed below with a thick and fine down, with which the skin of the body is completely invested.

Observers

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THE CINEREOUS PETREL. . .

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Observers agree to give this Petrel the name of *baff-bert* or *bav-best*, that is, sea-horse; "because," says Pontoppidan, "it utters a sound like the neighing of a horse, and the noise which it makes in swimming is like the trot of that animal." But it is difficult to conceive how a bird swimming can occasion a noise like a horse's trot. Was not the name imposed because of the Petrel's running on the water? The same author adds, that these birds invariably follow the boats employed in fishing for sea-dogs, in expectation of the entrails that are thrown out. He says, that they fasten so keenly on the dead whales, or such as are wounded and risen to the surface, that the fishermen knock them down with sticks, and yet cannot disperse the rest of the flock. Hence Rolandson Martin applies to them the name *mallemucke*; which, as we have formerly remarked, belongs properly to a gull.

These cinereous petrels are found from the sixty-second degree of north latitude to the eightieth. They fly among the ice of those regions, and when they are seen on the main, making towards land for shelter, it is, as in the *tempest-bird* or *little petrel*, a sign to navigators of an approaching storm.

[A] Specific character of the Fulmar, *Procellaria Glacialis*: "It is whitish, and its back somewhat hoary." This bird inhabits the island of St. Kilda, on the west of Scotland, the whole year, except during the months of September and October. It breeds about the middle of June, laying but a single egg, which is large, white, and very brittle. The islanders feed on its flesh, stuff their beds with

its down, and cheer their tedious winter-nights with lamps supplied with its oil.

The dead subject described in the text, was perhaps a variety of the shearwater, as Gmelin and Latham state; but the historical part of the article belongs undoubtedly to the Fulmar. See also *Species the Eighth*.

The WHITE and BLACK PETREL; or the CHECKER.*

SECOND SPECIES.

Procellaria Capensis. Linn. and Gmel.

Procellaria Nævia. Briss.

Pardela. Ulloa.

The White and Black spotted Peteril. Edw.

The Pintado Petrel. Lath.

THE plumage of this Petrel, marked with white and black, regularly intersected and checkered, has procured it the name *damier* (*chefs-board*) from our navigators. For the same reason the Spanish have termed it *pardelas*, and the Portuguese *pintado*, which the English have adopted. It is nearly the size of a common pigeon, and, as it has in its flight the air and port of that bird, the short neck, the round head, its length fourteen or fifteen inches, and

* Damier, i. e. Chefs-board: I have adopted the word *checker*, for the sake of shortness.—T.

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THE PINTADO.

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its alar extent thirty-two or thirty-three, navigators have often stiled it the *sea pigeon*.

The Checker has its bill and legs black; the outer toe is composed of four joints, the middle one of three, and the inner of two only; instead of a little toe it has a pointed spur, hard, a line and a half long, and the point turned outwards; the bill has over it the two little tubes or rolls in which the nostrils are perforated; the point of the upper mandible is curved, that of the lower is channeled, and, as it were, truncated: this character places the Checker among the family of Petrels, and excludes it from that of the puffins. The upper side of its head is black, the great quills of its wings are of the same colour, with white spots; the tail is fringed with white and black, and when spread it *resembles*, says Frezier, *a mourning scarf*; its belly is white, and its mantle is regularly interspersed with black and white spots. This description corresponds perfectly with what Dampier has given of the *pintado* *. The male and female scarce

* The *pintadoes* are admirably speckled with white and black; their head is almost black, as well as the end of the wings and the tail: but in this black of the wings there appear white spots about the size of half-a-crown when it flies, and the spots are then best seen. The wings are also bordered entirely round with a slender black edging, which gradually becomes more dilute, and approaches to a dull gray on the back of the bird: the inner edge of the wings, and the back itself, from the head to the end of the tail, are enamelled with an infinite number of handsome round spots, white and black, of the size of a half-penny; the belly, the thighs, the flanks, and the under surface of the wings, are light gray. *Dampier*.

differ sensibly from each other in bulk or in plumage.

The Checker, as well as many other Petrels, receives birth on the antarctic seas; and if Dampier considered them as belonging to the southern temperate zone *, it was because that voyager did not sufficiently penetrate into that cold, gloomy ocean: for Captain Cook assures us, " that these Petrels, and also the blue Petrels, " frequent every portion of the South Sea in the " highest latitudes." The best observers agree likewise, that they are very rarely met with before passing the tropic †; and it appears from many relations ‡, that the first latitudes where these

* We saw pintadoes when about two hundred leagues from the coast of Brazil, and thence till we approached nearly the same distance from New Holland. The pintado is a native of the southern hemisphere, and of the temperate part of it; at least I hardly ever saw any to the north of the thirty-first degree of south latitude. *Dampier.*

† The Checker is an inhabitant of the temperate and frigid zones of the southern hemisphere; and if a few pairs of these birds follow vessels beyond the tropic, they halt but a short time: and hence the Checker and the tropic-bird are seldom seen at once. *Observations communicated by the Viscount de Querboënt.*—On the 4th of October, in 25° 29' south latitude, a great number of small common Petrels, of a sooty-brown with a white rump (*procellaria pelagica*) flew about us; the air was cold and piercing: next day the albatrosses and the pintadoes (*procellaria capensis*) appeared for the first time. *Cook.*

‡ The following days we saw the same birds in greater numbers, nor did they leave us till we were very far beyond the Cape: some were black on the back and white under the belly, having the upper side of the wings variegated with these two colours, nearly like a chess-board: they are somewhat larger than a pigeon. There are others still bigger than the former, blackish above and entirely

these birds begin to be found in numbers, are in the seas near the Cape of Good Hope; they occur also on the same parallel about the coasts of America *. Admiral Anión sought for them unsuccessfully at the island of Juan Fernandez; yet he perceived many of their holes, and he concluded that the wild dogs which were spread through this island had chased them away or destroyed them. But in another season he might have there found these birds, supposing that the time he before made the search was not that of their hatching; for, as we have already said, they never reside on land, except when detained by incubation, but spend their days in open sea, resting on the water in calm, and even dwelling on it when it rolls in commotion; they seat themselves in the hollow between two waves,

entirely white below, except the extremity of their wings, which appears of a velvet black, and which the Portuguese call *mangas de velado*. *Tachard*.—Dampier was, according to his reckoning, 1,200 leagues east of the Cape. Nothing occurred remarkable on this run, except that he was accompanied by numbers of birds, especially pintadoes. *Hist. Gen. des Voy. tom. xi. p. 217*.

* “ In the passage from Rio de Janeiro to Port Desire, and “ about the latitude of 36° south, we began to see a great number “ of birds about the ship, many of them very large, of which some “ were brown and white, and some black: there were among them “ large flocks of pintadoes, which are somewhat larger than a pigeon, and spotted with black and white.” *Byron's Voyage, p. 9*. —In this latitude (43° 30' south, on the coasts of Brazil) and in that of Cape Blanc, which is in 46°, we saw numbers of whales and new birds like pigeons, their plumage regularly mottled with black and white; which has made the French give them the name *damier*, and the Spaniards, *pardela*. *Frezier*.

with their wings expanded, and are borne up by the wind.

Since they are almost continually in motion, their sleep must be much interrupted. They are accordingly heard flying about vessels at all hours of the night *: in the evening they often assemble under the poop, swimming at ease, and approaching the ship with a familiar air, and at the same time emitting their grating, hoarse voice, which closes in something like the cry of a gull †.

In their flight they glance the surface of the water, and, at intervals, dip their feet, which they hold pendent. It appears that they live on the fish spawn which floats on the sea ‡: however, the Checker is seen, with the crowd of other sea-fowls, to fasten greedily on the carcasses of whales §. They are caught by a hook baited with a bit of flesh ||: sometimes also they are entangled by the wings in the lines that drag at the ship's stern. When taken and car-

* Observation of the Viscount de Querhoënt.

† *Idem.*

‡ In the stomach of those which I opened I found a thick white mucilage, which I believe to be fish-spawn.

§ Dampier.

|| *Lettres Edifiantes*, xv. *Recueil*, p. 341. Approaching the island of St. Helena, two hundred leagues from the land of Nativity, a number of birds came to the sides of our vessel: we took them in plenty with bits of flesh with which we covered our hooks: they are as large as a pigeon, their feathers chequered with black and white, which was the reason that we called them *damiers*; their tail is broad, and their foot is like that of a duck. *Gauche.*

ried ashore, or set on the deck, they will jump, but cannot walk, or rise on wing. This also is the case with most sea-birds, which incessantly fly and swim at large: they cannot walk on the firm ground, and it is equally impossible for them to commence their flight. It is remarked even that, on the water, they wait till, raised by the swelling wave, they catch the wind, and are sprung through the air.

Tho' the Checkers appear usually in flocks * on the vast seas which they inhabit, and where a sort of social instinct holds them together, we are assured that a more particular and a very marked attachment binds the male and female, and that scarce has the one alighted on the water, than the other hastens to join it; that they mutually invite each other to partake of the food which chance has thrown in their way; and lastly, that if one of the pair is killed, the whole flock give signs of regret, by alighting and staying some minutes beside the dead body, but that the surviving mate shows evident marks of tenderness and sorrow; that it pecks its inanimate companion, as if to recall it to life; and after the rest of the troop has retired, it long continues to mourn over the corpse †.

* All the pintadoes go generally in flocks, and almost sweep the water as they fly. *Dampier*.

† Close of the observations which the Viscount de Querhoënt made at sea, and which he obligingly communicated.

[A] Specific character of the *Procellaria Capensis*: "It is variegated with white and brown." It lays an egg of the size of a hen's in the month of December, which corresponds to June in our hemisphere. It is said to chatter like a parrot, if taken and confined.

The ANTARCTIC PETREL; or BROWN CHECKER.

T H I R D S P E C I E S.

Procellaria Antarctica. Gmel.

THIS Petrel resembles the Checker, except the colour of its plumage, of which the spots, instead of black, are brown on a white ground. The denomination of Antarctic Petrel, given to it by Captain Cook, seems to suit it perfectly, since it occurs only in the highest southern latitudes*; while many species of Petrels, common in the lower latitudes, particularly that of the black checker, appear not in those dismal regions.

In the second voyage of that great navigator, he gives the following account of this new spe-

* In 62° 10' south latitude, and 172° longitude, we saw the first island of ice, and at the same time we perceived an Antarctic Petrel, some gray albatrosses, pintadoes, and blue petrels. *Cook*.—In latitude 66°, Captain Cook saw some Antarctic Petrels in the air.—In 67° 8', he was visited by a small number of Antarctic Petrels.

cies of Petrels. " In $67^{\circ} 15'$ south latitude, we
" saw numbers of whales playing about the islands
" of ice. Two days after, we remarked many
" flocks of *pintados*, brown and white, which I
" called *Antarctic Petrels*, because they seemed
" peculiar to those regions. They are in every
" respect shaped like the *pintadoes*, from which
" they differ only in colour; the head and the
" fore side of their body are brown, and the hind
" part of their back, their tail, and the extremities
" of their wings, are white." In another part,
he says, " While we were collecting ice, we
" caught two *Antarctic Petrels*, and upon ex-
" amining them, we were still disposed to believe
" that they belonged to the family of the Pe-
" trels. They are nearly of the size of a large
" pigeon; the feathers of the head, the back,
" and a part of the upper side of the wings, are
" of a light brown; the belly, and the under side
" of the wings, are white; the feathers of the
" tail are white also, but brown at the tips. I
" remarked that these birds had more plumage
" than those we had seen; so careful is nature
" to accommodate the cloathing to the climate.
" We found these Petrels among the snow."

Yet these Petrels, so common among the
floating islands of ice, disappear, as well as all
the other birds, when the firm ice is approach-
ed, whose formidable bed extends very far into
the polar regions of the southern continent.
Of this fact we are informed by that great
navigator,

navigator, the first and the last perhaps of mortals, that has dared to visit the frozen barriers which nature gradually forms and enlarges in proportion as our globe cools. "After our arrival amidst the ice," he says, "no Antarctic Petrel any more called our attention."

[A] Specific character of the *Procellaria Antarctica*: "It is brown; below blueish white; its tail white tipped with black; its legs lead-coloured."

The WHITE PETREL, or SNOWY PETREL.

FOURTH SPECIES.

Procellaria Nivea. Gmel.

THIS Petrel is very justly denominated the *Snowy Petrel*, not only on account of the whiteness of its plumage, but because it is always met with in the vicinity of the frozen regions, and announces to the navigator in the South Sea his approach to the ice-islands. Captain Cook, when he first saw them at a distance, termed them *white birds* *; but afterwards he discovered

* "At noon we were in the latitude of $51^{\circ} 50'$ south, and longitude $21^{\circ} 3'$ east, where we saw some white birds about the size of pigeons,

discovered from the structure of their bill that they belonged to the genus of Petrels. They are as large as a pigeon; their bill is blueish-black; their legs are blue, and their plumage seems to be entirely white.

"When we approached a broad ridge of solid ice," says Forster, the learned and laborious companion of the illustrious Cook, "we observed at the horizon, what the Greenland-men call an *ice-twinkle*; insomuch that, from the appearance of this phænomenon, we were sure of meeting ice at a few leagues distance. Then it was that we commonly saw flights of White Petrels of the size of pigeons, which we called *Snowy Petrels*, and which are the fore-runners of the ice."

These White Petrels, intermingled with the antarctic petrels, seem to have constantly accompanied these adventurous navigators in all their traverses amidst the islands of ice, as far as the vicinity of the immense *glaciere* of the southern pole. The flight of these birds on the waves, and the motion of some whales in the icy flood, are the last, and the only objects that preserve the remains of animation in those frightful regions, the scene of expiring nature.

"pigeons, with blackish bills and feet. I never saw any such before; and Mr. Forster had no knowledge of them. I believe them to be of the Peterel tribe, and natives of these icy seas. At this time we passed between two ice islands, which lay at a little distance from each other." *Cook's second Voyage*, vol. i. pp. 22 and 23.

[A] Specific

[A] Specific character of the *Procellaria Nivea*: "It is snowy; the shafts of its feathers, and its bill, are black; its legs are dull blue."

The BLUE PETREL.

FIFTH SPECIES.

Procellaria Vittata. } Gmel.
Procellaria Cærulea. }
The Vittated Petrel. Forster.
The Blue-billed Petrel. Lath.

THE Blue Petrel, so called because its plumage is blue gray, as well as its bill and legs, occurs only in the South Seas, from the twenty-eighth to the thirtieth degree of latitude, and thence towards the pole. Captain Cook was accompanied from the Cape of Good Hope as far as the forty-first degree by flocks of these Blue Petrels, and flocks of Checkers, whose numbers the rough sea and boisterous winds seem to augment. He again saw the Blue Petrels in the fifty-fifth degree to the fifty-eighth; and, no doubt, they inhabit all the intermediate points of these southern latitudes.

It is remarked as a peculiarity in these Blue Petrels, that their bill is exceeding broad, and their tongue very thick: they are somewhat larger than the snowy petrels*. In the blue

* The Blue Petrel has nearly the size of a little pigeon. Cook.

gray tint that covers the upper side of the body, we perceive a deeper band, cutting transversely the wings and the lower part of the back: the end of the tail is also of the same deep blue or blackish cast: the belly and the under side of the wings are of a blueish-white. Their plumage is thick and abundant. "The Blue Petrels, which are seen in this immense sea," (between America and New Zealand) says Mr. Forster, "are no less provided against the cold than the penguins. Two feathers, instead of one, grow from each root; they are laid one upon another, and form a very warm covering. As they are continually in the air, their wings are very strong and long. We found them between New Zealand and America, more than seven hundred leagues from land; a space which it would be impossible for them to traverse, were not their bones and muscles prodigiously firm, and were they not aided by long wings."

"These sailor-birds," continues Mr. Forster, "live perhaps a considerable time without food. . . . Our experience demonstrates and corroborates in some respects this supposition: when we wounded some of these Petrels, they instantly discharged a quantity of viscous aliment, newly digested, which the others swallowed with an avidity that betrayed a long fasting. It is probable, that in those frozen seas there are many species of *mollusca*, which
" rise

"rise to the surface in fine weather, and serve
"to support these birds."

The same observer again found these Petrels in vast numbers assembled to nestle in New Zealand. "Some were flying, others were in
"the middle of the woods, under the roots of
"trees, in the crevices of rocks where they could
"not be caught, but where they undoubtedly
"hatch their young. The noise which they
"made resembled the croaking of frogs. None
"appeared in the day, but they flew much during the night."

These Blue Petrels were of the broad-billed species which we have just described; but Captain Cook seems to point out another in the following passage: "We killed Petrels; many
"were of the blue kind, but they had not a
"broad bill, as those of which I have spoken
"above; and the end of their tail was tinged
"with white, instead of deep blue. Our naturalists could not agree, whether this form of
"the bill, and this shade of colour, distinguished
"only the male from the female*." It is not probable that such a difference in the fashion of the bill could take place between the male and female of the same species; and it would seem, that we ought to admit two species of Blue Petrels, the first with a broad bill, and the second with a narrow bill, and the tip of the tail white.

* "We were in the fifty-eighth degree of south latitude." Cook.

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[A] Specific character of the *Procellaria Vittata*: "It is blueish cinereous; below white; its legs black." The other Blue Petrel is termed *Procellaria Cærulea*, and is thus characterized: "It is blueish cinereous; below white; the bill and legs blue."

The GREATEST PETREL;
QUEBRANTAHUESSOS of the Spaniards.

SIXTH SPECIES.

Procellaria Gigantea. Gmel.

The Osprey Petrel. Forst. Obs.

Glupisba. Hist. Kamtsch.

Offisfraga, or *Break-bones.* Ulloa.

The Giant Petrel. Penn. and Lath.

QUEBRANTAHUESSOS signifies *bone-breaker*; and this denomination refers no doubt to the force of the bill of this great bird, which is said to approach the bulk of the albatross. We have not seen it; but Forster, a learned and accurate naturalist, describes its magnitude, and ranges it among the Petrels. In another place, he says, "We found at Staten-land gray petrels, of the size of the albatross, and of the species which the Spaniards term *Quebrantahuessos*, or bone-breaker." Our sailors called this bird *Mother Carey's Goose*; they ate it, and found it pretty good. A circumstance which

which the more assimilates it to the Petrels, is, that it seldom appears near vessels but on the approach of stormy weather. This is related in the *Histoire Generale des Voyages*: some descriptive details are there added, which appear however too uncertain to be adopted, and which we shall therefore be contented to throw into a note*.

* The pilots in the South Sea have long remarked, that a day or two before a north-wind blows, a sort of birds, which they see at no other time, then advance to the coast, and hover about vessels: they are called *quebrantabuefios* (that is, *bone-breakers*); and they are observed to alight and float on the waves beside the ship till the weather calms. It is pretty strange that, except at this time, they never appear either on water or on land, and that we know not their retreats, which they so punctually leave when their instinct forewarns them of danger. This bird is somewhat larger than a duck; its neck is thick, short, and a little curved; its head large, its bill broad, and not long; its tail small, its back raised, its wings spacious, its thighs small: some have the plumage whitish, in others it is spotted with dull brown; in others the whole crown, the inner part of the wings, the lower part of the neck, and the whole of the head, are perfectly white; but the back, and the upper part of the wings and of the neck, are brown verging on black; hence they are called *lomos-priatos* (blackish-backs): they are reckoned the surest forerunners of foul weather. *Hist. Gen. des Voy. tom. xiii. p. 49^e.*

[A] Specific character of the Giant Petrel, *Procellaria Gigantea*: "It is brownish spotted with white; below white; its shoulders, its wings, and its tail, are brown; its bill and legs yellow." It is forty inches long. It is nimble, and lives on fish and the carcases of seals. Its flesh is palatable food.

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The PUFFIN-PETREL.

SEVENTH SPECIES.

Procellaria Puffinus. Linn. and Gmel.

Puffinus. Briss.

Puffinus Anglorum. Will. Ray, and Sibb.

Avis Diomedea. Gefn. Aldrov. Johnst. and Charit.

Larus Piger Cunicularis. Klein.

Sterna Medica. Brown.

The Manks' Puffin, or Puffin of the Isle of Man. Johnst. Will. and Edw.

The Shear-water Petrel. Will. Penn. and Lath. *

THE character of the branch of *Puffins* in the genus of Petrels consists, as we have said, in both mandibles being hooked and bent downwards; a structure undoubtedly of very little advantage to the bird, and which, in the use of its bill and in the act of seizing, allows the upper mandible to exert small force on the reflected part of the lower. The nostrils are of a tubulated form, as in all the Petrels; the structure of its feet with the spur at the heel, as well as the general shape of its body, are the same. It is fifteen inches long; its breast and belly are white; a gray tint is spread over the whole

* In Norway it is called *Skraap*: in the Heroe islands *Skrabs*; and the young *Liere*.

upper side of the body, pretty clear on the head, and which becomes deeper and blueish on the wings and the tail, in such manner however that each feather appears fringed or festooned with a lighter tint.

These birds reside in our seas, and seem to have their rendezvous in the Scilly islands, but more especially on the Calf of Man: they resort there in multitudes during the spring, and begin by making war on the rabbits, the only inhabitants of that rock; they drive these from their burrows, of which they take possession. They lay two eggs, one of which, it is said, usually never hatches: but Willughby positively asserts, that they have only a single egg. As soon as the chick is hatched, the mother leaves it early in the morning, and returns not till evening. During the night she feeds it, disgorging at intervals the substance of the fish which she caught in the course of the day at sea. The aliment, half digested in her stomach, turns into a sort of oil, which she gives to her young one. This nourishment makes it extremely fat; and, at this time, some fowlers land on the rocky islet, where they lodge in huts, and catch multitudes of the young birds in their burrows. But to render this game palatable, it must be cured with salt, in order to temper in part the rankness of its excessive fat. Willughby, from whom we borrow these facts, adds, that as the fowlers have a custom of cutting

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ting away a foot from each of these birds, for the sake of reckoning the number caught, the people entertain a notion that they are hatched with a single foot.

Klein pretends, that the name *Puffin* or *Pupin* is formed from the cry of the bird. He remarks, that this species has its times of appearance and disappearance; which must indeed be the case with birds that never come on land but to nestle, and that dwell on the sea sometimes in one latitude, sometimes in another, always attending the shoals of little migratory fish, or their collections of spawn, on both which they feed.

Though the observations above related were all made in the northern sea, it appears that this species is not exclusively attached to that part of our globe. It is common on all seas, for it is the same with the *Jamaica shear-water* of Brown, and the *artenna* of Aldrovandus. In short, it seems to frequent equally the different portions of the ocean, and even to advance into the Mediterranean, as far as the Gulf of Venice and the *Tremiti* isles, anciently called *the isles of Diomedes*. All that Aldrovandus says, whether of the figure or of the natural habits of his *artenna*, corresponds with those of the shear-water. He assures us, that the cry of these birds resembles exactly the wailing of a new-born infant. Finally, he is disposed to believe that they are

*the birds of Diomedé**, famous in antiquity from an affecting fable. It was of those Greeks, who, with their valiant leader, pursued by the wrath of the gods, were found in those islands metamorphosed into birds, which still retaining something human, and a tender remembrance of their ancient country, flocked to the shore when the Greeks disembarked, and seemed, by their tender accents, to express their melancholy regret. But this interesting mythology, whose fictions, too much censured by persons of cold temper, diffused to the apprehension of sensible minds so much grace, life, and charms in nature, appears really to allude, in this instance, to a point in natural history, and to have been imagined from the moaning voice of these birds.

* Ovid, speaking of these birds of Diomedé, says :

*Si volucrum quæ sit dubiarum forma requiris,
Ut non cygnorum, sic albis proxima cygnis.*

This does not come very near to the Petrel ; but poetry and mythology are here so blended, that we cannot expect to find exact traces of nature. Linnæus was not very happy in applying his erudition, when he gave the name of *Diomedea* to the albatross ; since this large bird occurs only in the seas of the east and south, and was therefore unknown to the Greeks.

[A] Specific character of the Shear-water, *Procellaria Puffinus* :
“ Its body is black above, and white below ; its legs are rufous.”

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N^o 253



THE FULMAR, FROM THE ISLAND OF ST. KILDA.

The F U L M A R;
 or, WHITE-GRAY PUFFIN-PETREL
 OF THE ISLAND OF ST. KILDA.

E I G H T H S P E C I E S.

FULMAR is the name which this bird has at the island of St. Kilda. It seems to us a species closely related to the preceding; the only difference being this, that the plumage of the under side of the body is white-gray in the Fulmar, and blueish-gray in the shear-water.

“The Fulmar,” says Dr. Martin*, “feeds
 “on the back of living whales; its spur serves
 “to hold it firm on their slippery skin, without
 “which precaution they would be blown off by
 “the wind, always violent in those stormy seas.
 “... If one attempts to seize or even touch the
 “young Fulmar in its nest, it spurts from its bill
 “a quantity of the oil in the person’s face.”

This eighth species is the same with the first, which was not so distinctly described as usual.

* Voyage to St. Kilda, *London*, 1698, p. 55.

The BROWN PUFFIN-PETREL.

NINTH SPECIES.

Procellaria Æquinoctialis. Linn, and Gmel.

Puffinus Capitis Bonæ Spei. Briss.

Plantus Albatrossi Spurius Major. Klein.

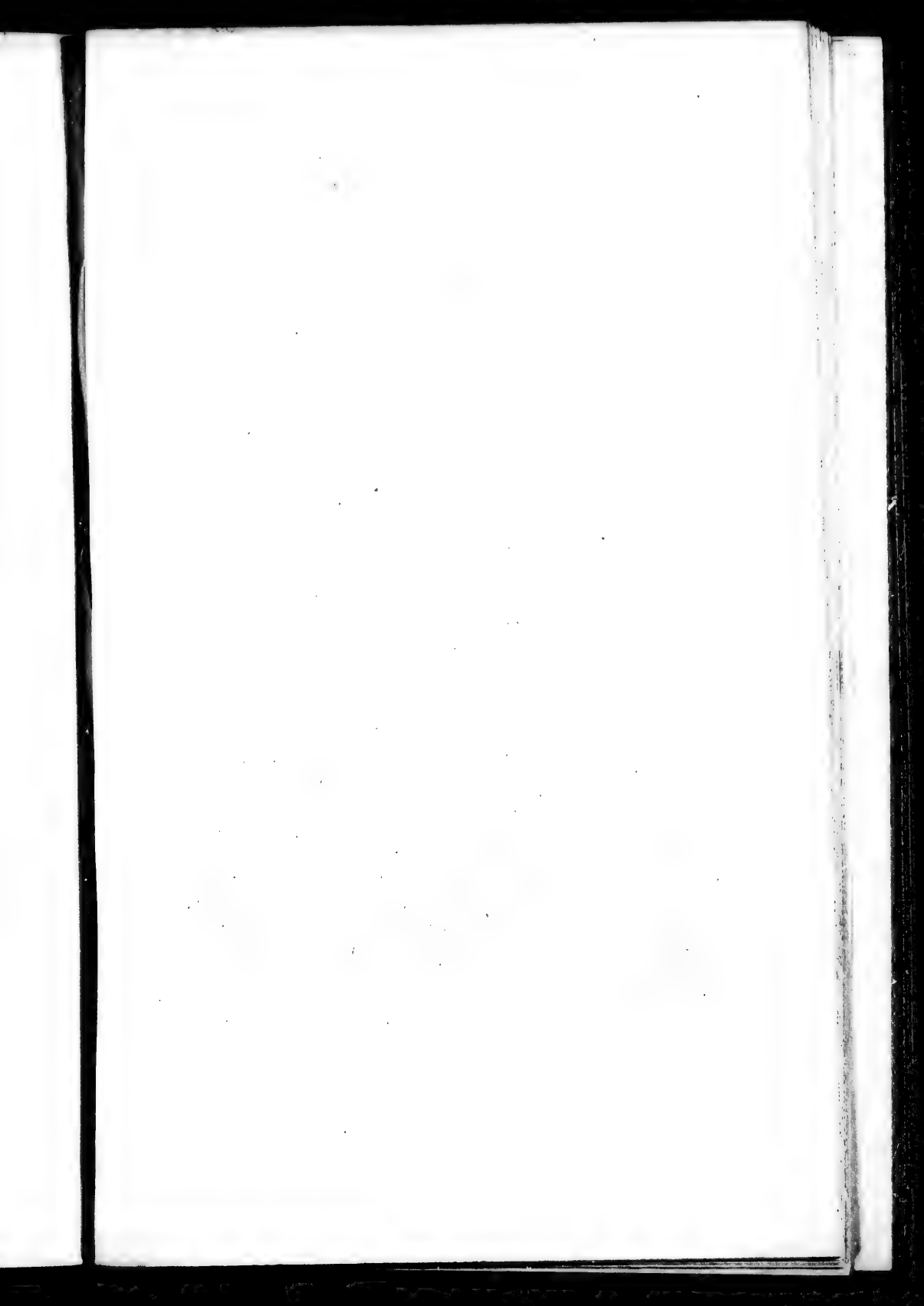
Avis Diomedea. Redi Dissert.

The Great Black Petrel, Edw. and Lath.

EDWARDS, though he gives this bird under the name of the *great black Peteril*, remarks, that the uniform colour of its plumage is rather blackish brown than jet black. He compares its size to that of a raven, and describes very well the conformation of its bill, which character places it among the Puffins. "The nostrils," says he, "seem to have been two tubes joined together, which rising from the fore part of the head, advance about a third of the length of the bill, of which both points bent downwards into a hook, look like two pieces added and soldered."

Edwards reckons this species a native of the seas adjacent to the Cape of Good Hope; but this is merely conjecture.

[A] Specific character of the *Procellaria Æquinoctialis*: "It is brown and spotless; its bill bright yellow; its legs brown."



N^o 254



THE STORMY PETREL.

The STORMY PETREL.

L'OISEAU DE TEMPETE. *Buff.*

TENTH SPECIES.

Procellaria Pelagica. Linn. and Gmel.

Procellaria. Briss.

Plautus Minimus, Procellarius. Klein.

The Storm-finch. Will. and Penn.

The Small Petrel. Edw. and Borlase.

The Gourder. Smith's Hist. Kerry.

The Afflag. Martin's St. Kilda, and Sibbald's Hist. Fife*.

THOUGH the epithet *stormy* is applicable more or less to all the Petrels, yet navigators have agreed to appropriate it to this species. The Stormy Petrel is the last in the order of size, not exceeding that of a finch; whence it has sometimes received its name. It is the smallest of all the palmipede birds; and one might be surprised that so little a bird should expose itself on the ocean at an immense distance from land. But amidst its audacity, it still seems conscious of its weakness, and it is the first that seeks shelter from the impending storm.

* In Swedish *Stormwaders Vogel*; in Norwegian *St. Peder's Fugl*, *Soren Peder*, *Vesten Vinds Arel*, *Sonden Vinds Fugl*; and in the Feroe islands, it is called *Strunk Vit*.

By force of instinct, it perceives those indications which escape our senses; and its motions and its approach warn the sailors to be prepared for the tempest *.

When, in calm weather, these little Petrels are seen to flock behind a vessel, flying on the wake, and sheltering themselves under the stern, the mariners hasten to furl the sails, and prepare for the storm, which infallibly comes on a few hours after †. Thus, the appearance of these birds at sea is at once dismal and salutary; and nature would seem to have dispersed them over the wide ocean to convey the friendly intelligence. The species of the Stormy Petrel is universally diffused: "It is found," says Forster, "equally in the northern and the southern seas, "and almost in all latitudes." Many sailors have

* Clusius.

† More than six hours before the storm, it foresees its approach, and hastens to shelter itself beside the vessels which it descends at sea. *Linnaeus, in the Stockholm Memoirs.*—On the 14th of May, between the island of Corsica and that of Monte Christo, we saw behind the vessel a flock of *Petrels*, known by the name of *Storm-birds*. When these birds arrived, it was three o'clock in the afternoon; the weather was fine, the wind south-east, and almost calm: but at seven o'clock the wind turned into the south-west with much violence, the sky thickened and grew stormy, the night was very dark, and repeated flashes of lightning augmented the horror, the sea swelled prodigiously, and we were obliged to pass the whole night under a reefed main-sail. *Extract from the Journal of a Navigator.*—It would seem that many navigators apply the name of *alcyon* to the Stormy Petrel, or some other species, which follows their vessels, but is very different from the kingfisher, or the *alcyon* of the ancients.

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averred, that they met with these birds in every track of their voyages *. But they have not on that account been the easier to catch; they have long even escaped the search of observers, because, when shot, they were almost always lost in the eddy of the ship's wake, which swallowed up their little body †.

The Stormy Petrel flies with amazing swiftness by means of its long wings, which are pretty much like those of the swallow ‡. It can rest amidst the tumbling billows; it shelters itself in the hollow between two high waves, where it remains a few seconds, though the swell rolls on with extreme rapidity. In these watery undulating furrows it runs, like the lark in the furrows of ploughed land, it supports and moves itself not by flying but by running, in which, balanced on its wings, it with astonishing swiftness razes and strikes the surface of the water with its feet §.

The

* These birds fly on all the coasts of the Atlantic Ocean, and are seen on the shores of America, as well as those of Europe, several hundred leagues from land; sea-faring people generally reckon their appearance as the prognostic of a storm. *Catesby*.—I have seen many of these birds together in the broadest and most northern parts of the German Ocean, when they must have been upwards of a thousand English miles from land. *Edwards*.

† "One of these birds," says Linnaeus, "was fired at on wing, but missed; yet it was not intimidated by the report; and perceiving the wad, it alighted, mistaking it for food, and was caught by the hand."

‡ *Saleme*.

§ "You would say it was Pegasus, if you saw it running like lightning on the water," *Clusius*.—Though their feet are formed for swimming,

The colour of the plumage of this bird is a blackish brown or a smoky black, with purple reflections on the fore side of the neck, and on the coverts of the wings, and other blueish reflections on their great quills: the rump is white; the point of its folded and crossed wings projects beyond the tail; its legs are pretty tall, and, like the other Petrels, it has a spur instead of a hind toe; and as the two mandibles are bent downwards, it belongs to the family of *Puffins*.

It appears that there is a variety in this species: the little Petrel of Kamtschatka has the tips of its wings white*; that of the Italian seas, which Salerne describes minutely, and at the same time discriminates from the stormy Petrel †, is, according to that ornithologist,

swimming, they are also calculated for running; indeed they most commonly use them in the latter, for they are seen very often running swiftly on the surface of the waves, when thrown into the greatest commotion. *Catesby*.

* The *procellaria*, or the birds that foretell storms, are about the bulk of a swallow; they are entirely black, except the wings, whose tips are white. *History of Kamtschatka*.

† "It is not," says he, "larger than the *sea-finch*; its head is almost wholly blue, as well as its crown and its sides, with reflections of violet and of black; the upper side of its neck is green and purple, changing like that of the pigeon; the top of its wings and its rump are speckled with white; all the rest is black: it has a very quick, confident look. This bird seems to be a stranger to land, at least no person can say that he ever saw it on the coast: its presence is a sure sign of an approaching storm, though the sky, the air, and the sea, betray no indication of it, but are calm and serene: at this time they do not fly one by one, but they all direct their flight to some vessel which they descry from a distance, and at which they meet." *Salerne*.

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tinged with blue, violet, and purple. But we think that these colours are nothing else than the reflections with which the dull ground of its plumage is glossed. And with respect to the white or whitish feathers on the coverts of the wing, which Linnæus mentions in his description of the little Swedish Petrel, which is the same with ours, the difference arises undoubtedly from the age. [A]

To this little Petrel we shall refer the *rotje* of Greenland and Spitzbergen, which the Dutch navigators speak of; for though their accounts are in some respects incongruous, they are sufficient to shew the identity of the *rotje* and our Stormy Petrel. "The *rotje*," according to these voyagers, "has a hooked bill . . . it has only "three toes, which are connected by a membrane . . . it is almost black over all the body, "except on the belly, which is white: some also "have their wings spotted with black and white. " . . . In other respects, it much resembles a swallow." Anderson says, that *rojet* signifies *little rat*, and that "this bird has, in fact, the black colour, "the diminutive size, and the cry of a rat*." It seems

[A] Specific character of the Stormy Petrel, *Procellaria Pelagica*: "It is black; its rump white." Its length is six inches; its alar extent thirteen. This bird is particularly frequent on the Atlantic Ocean: it is silent in the day, and clamorous during the night. The sailors call it the *Witch*.

* They cry *rottet, tet, tet, tet, tet*, at first very high, and afterwards lowering the tone gradually; perhaps this cry has occasioned

seems that these birds never come ashore in Spitzbergen and Greenland, but to breed their young: they place their nest, like all the Petrels, in narrow deep holes, under the ruins of fallen rocks, on the coasts, and close on the water's edge. As soon as the young are able to come out of the nest, the parents accompany them, and slip out of their holes into the sea, and return not to land.

With regard to the *little diving Petrel* of Cook and Forster, we should have also given it the same arrangement, had not these voyagers indicated, by that epithet, a habit which we know not in our Stormy Petrel, that of diving*.

Finally,

sioned their receiving the name of *rotje*: they make more noise than any other bird, because their voice is shriller and more piercing. They build their nests with moss, and some on the mountains, where we killed a great number of the young ones with sticks: they feed on certain gray worms resembling crabs... they also eat red shrimps and lobsters. We killed some of these birds, for the first time, on the ice, on the 29th of May; but afterwards we took many at Spitzbergen. These birds are very good to eat, and the best next to those which are called *strand copers runners* (shore-runners); they are fleshy and fat. *Recueil des Voyages du Nord; Rouen, 1716, tom. ii. p. 93.*

* In Queen Charlotte's Sound (at New Zealand), we saw great flocks of little diving Petrels (*procellaria tridactyla*) flying or sitting on the surface of the sea, or swimming under water to a considerable distance with astonishing agility. They appeared to be exactly the same with those which we had met with in our search for Kerguelin's land, in the 48th degree of latitude. *Cook.*—In latitude 56° 46', longitude 139° 45', the weather became fair, and the wind veered to the S. W. About this time we saw a few small divers (as we called them) of the Peterel tribe, which we judged to be such as are usually seen near land, especially in the

Finally, we shall refer, not indeed to the Stormy Petrel, but to the tribe of Petrels in general, the species hinted at in the following notices.

I. The Petrel, which Captain Carteret's sailors called *Mother Carey's Chicken*, "which appeared," he says, "to walk on the water, and of which we saw many from the time we cleared the Straits of Magellan, along the coasts of Chili*." This Petrel is probably one of these which we have described; perhaps the *quebrantabueffos*, called *Mother Carey* by Cook's people†. — A word on the size of this bird would have decided the question.

the bays and on the coast of New Zealand. I cannot tell what to think of these birds. Had there been none of them, I should have been ready enough to believe that we were, at this time, not very far from land; as I never saw one so far from land before. Probably these few had been drawn thus far by some shoal of fish; for such were certainly about us, by the vast number of blue Peterels, albatrosses, and such other birds as are usually seen in the great ocean: all, or most of them, left us before night. *Cook's Second Voyage*, vol. i. pp. 260 & 261.

[The bird mentioned in these extracts is the diving Petrel of Latham, and the *Procellaria Urinatrix* of Gmelin, which is thus characterized: "It is brown and deep black; its under side white; its bill and chin black; its feet blue green, and having three toes." It is eight inches and a half long.—T.]

* It is also the same probably which Wafer mentions in the following terms. "The gray birds (of the island of Juan Fernandez) are nearly of the bulk of a small pullet, and make holes in the ground like rabbits; in these they lodge night and day; they go a-fishing."

† Our author's conjecture is right; it is the giant Petrel.—T.

II. The

II. The *devil birds* of Father Labat, of which we can hardly determine the species, notwithstanding all that this prolix author speaks of it. We shall give his account, much abridged.

“The devils, or *diablotins*, begin,” says he, “to appear at Guadaloupe and St. Domingo about the end of the month of September. They are then found two and two in each hole. They disappear in November, and appear again in March; at which time the mother is found in her hole with two young ones, which are covered with a thick and yellow down, and are lumps of fat: they are now called *cottons*. They are able to fly, and they depart about the end of May. During this month many are caught, and the negroes live on nothing else. . . . The great sulphur mountain (*soufrière*) in Guadaloupe is all bored, like a warren, with the holes which these devils excavate: but as they select the steepest parts, it is very dangerous to catch them . . . All the night we spent on that mountain, we heard the great noise made by them going out and in, and calling and answering each other . . . By our mutual assistance, dragging each other with cords, we reached places stocked with these birds. In three hours our four negroes took thirty-eight devils out of their burrows, and I seventeen . . . A young devil newly roasted is a delicious food . . . The old devil is nearly of the size of a pullet ready to lay; its plumage is black;

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“ its wings are broad and strong; its legs are
“ pretty short; its toes are furnished with stout
“ and long claws; the bill is hard, and very
“ hooked, pointed, and an inch and an half long;
“ it has large eyes level with its head, which
“ serve admirably for seeing in the night, but are
“ so useless during the day, that it cannot bear
“ the light, or discern objects; infomuch, that if
“ it be overtaken by day, while out of its retreat,
“ it dashes against every thing it meets, and at
“ last tumbles to the ground . . . and hence it
“ never goes to sea but in the night.”

What Father Dutertre says of the *devil-bird* does not assist us to discover this. He speaks only from the reports of fowlers; and all that we can infer from the natural habits of the bird is, that it is a Petrel.

III. The *Alma de Maestro* of the Spaniards, which appears to be a Petrel, and might even be referred to the checker, if the account given of it were a little more precise, and did not begin with an error, by applying the name *pardela*, which constantly applies to the checker, to two Petrels, a gray and a black, with which it does not correspond*.

IV. The

* In the passage from Chili to Peru, at a great distance from land, we saw birds remarkable for roving on the ocean; they are called *pardelas*: they are nearly of the size of a pigeon; their body is long, their neck very short, their tail in proportion, their wings long and thin. They are distinguished into two kinds, the one gray, the other black; and their only difference consists in the colour. We saw

IV. The *Majagué* of the Brazilians *, which Pifo describes as follows: " It is," says he, " of the size of a goose, but its hooked bill enables it to catch fish; its head is round, its eye brilliant; its neck bends gracefully like that of the swan; the feathers on the fore side of the neck are yellowish; the rest of the plumage is of a blackish brown. This bird swims and dives swiftly, and easily eludes ambushes: it is seen on the sea *near the mouths of rivers.*" This last circumstance, were it constant, would incline us to doubt whether this bird belonged to the Petrels, which all affect to live remote from the shores.

saw also, but at a less distance on sea, another bird, which the Spaniards call *Alma de Maestro*, black and white; it has a long tail, and is not so common as the pardelas; it seldom appears but in rough weather, and hence its name. *Run of the Frigates le Veles & la Rosa from Callao to Juan Fernandez; Hist. Gen. des Voy. tom. xiii. p. 497.*

* The *Procellaria Brasiliensis* of Linnæus.

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THE WANDERING ALBATROSS.

The W A N D E R I N G A L B A T R O S S.

L' ALBATROS. *Buff.*

Diomedea Exulans. Linn. and Gmel.

Albatrus. Briss.

Plautus Albatrus. Klein.

Tchaiki. Pallas, and Hist. Kamtschi.

The Man-of-War Bird. Alb. and Grew.

THIS is the largest of the water-fowl, not excepting even the swan; and though inferior in bulk to the pelican or flamingo, its body is much thicker, its neck and legs shorter and better proportioned. Besides its lofty stature, the Albatross is remarkable for many other attributes, that distinguish it from all the other species of birds. It inhabits only the South Sea, and is found in the whole extent, from the promontory of Africa to those of America and New Holland. It never has been seen in the seas of the northern hemisphere, no more than the manchots, and some others which seem to be attached to that portion of our globe, where they can scarce be disturbed by man, and where they have long remained unknown. It is southwards, beyond the Cape of Good Hope, that the first

Albatrosses were seen; nor before our own times were they examined with attention sufficient to discriminate the varieties, which, in this large species, seem to be more numerous than in other large species of birds or quadrupeds.

The very great corpulence of the Albatross has procured it the appellation of *Cape Sheep* *. The ground of its plumage is a dun white on the mantle, with little black hatches on the back and on the wings, where these hatches multiply and thicken into speckles: a part of the great quills of the wing, and the extremity of the tail, are black: the head is thick, and of a round form: the bill is of a structure similar to that of the bill of the frigate, the booby, and the cormorant; it is composed in the same manner of several pieces that seem articulated and joined by sutures, with a hook superadded, and the end of the lower part hollowed with a channel, and, as it were, truncated; this very large and strong bill resembles that of the petrels, in the remarkable property that its nostrils are open in shape of little rolls or sheaths, laid near the root of the bill in a groove which, on each side, runs the whole length; it is yellowish white, at least in the dead bird: the legs, which are thick and stout, have only three toes connected by a broad membrane, that edges also the outside of each exterior toe: the length of the body is near three feet; the alar extent at

* *Mouton du Cap.*

least ten * ; and, according to Edwards, the first bone of the wing is as long as the whole body.

With this force of body, and these arms, the Albatross might seem to be a warrior bird. Yet we are not told that it assails the other fowl, which also cross those vast seas : it seems even to act on the defensive against the gulls, which, ever quarrelsome and voracious, harass and annoy it †. It attacks not even the great fish ; and, according to Forster, it subsists almost wholly on little marine animals and mucilaginous zoophytes, which float in abundance on the South Sea ‡. It feeds also on the spawn and fry of fish, which the currents bear along, and which sometimes cover a great extent. The Viscount de Querhoënt, an accurate and judicious observer, assures us that he invariably found their stomachs to contain only a thick mucilage, and no vestiges of fish.

* Our latitude was $60^{\circ} 10'$ south, our longitude $64^{\circ} 30'$. . . As the weather was very calm, Mr. Banks went into a small boat to shoot birds, and he brought some Albatrosses : we remarked, that these were larger than such as we had taken on the north of the Strait Lemaire ; one of them, which we measured, was ten feet two inches in alar extent. *Cook*.—The Albatrosses, the frigats, the flying fish, the dolphins, and the sharks, played about the ship : our gentlemen had killed Albatrosses that were ten feet across the wings. *Idem*.

† Several large gray gulls, that were pursuing a white Albatross, afforded us a diverting spectacle ; they overtook it, notwithstanding the length of its wings, and they tried to attack it under the belly, that part being probably defenceless ; the Albatross had now no means of escaping, but by dipping its body into the water ; its formidable bill seemed then to repel them. *Cook*.

‡ *Idem*.

Captain Cook's people caught the Albatrosses, which often appeared about the ship, with hook and line *. The capture was the more agreeable † to these navigators, as they were in the midst of the ocean, far from any land ‡; for these large birds were met with on the whole extent of the South Sea, at least in the high latitudes §. They frequent also the islands scattered in

* "We were in latitude $35^{\circ} 25'$ south, and $29'$ west of the Cape, and had abundance of Albatrosses about us, several of which we caught with hook and line; and were very well relished by many of the people, notwithstanding they were at this time served with fresh mutton." *Cook, vol. i. p. 20.*—[I have here corrected an error in our author's text, occasioned by a very extraordinary inaccuracy in a French translation of Cook's Voyage, to which he refers; where it is said, that *they caught the Albatrosses with a line and hook baited with a bit of sheep's-skin.*—T.]

† "We skinned the Albatrosses, and after soaking them till next morning in salt water, we boiled them, and seasoned them with a rich sauce; every body found it thus dressed to be very palatable, and we ate it when there was fresh pork on the table." *Cook's First Voyage.*—"In $40^{\circ} 40'$ south latitude, and $23^{\circ} 47'$ east longitude . . . we killed Albatrosses and petrels, which we were then glad to eat." *Idem.*

‡ "We had another opportunity of examining two different kinds of Albatrosses . . . We had now been nine weeks without seeing any land." *Cook's Second Voyage.*—"On the 8th, being in the latitude of $41^{\circ} 30'$ S. longitude $26^{\circ} 51'$ E . . . We daily saw Albatrosses, peterels, and other oceanic birds, but no sign of land." *Idem. vol. ii. p. 245.*

§ "We were now in the latitude of $32^{\circ} 30'$, longitude $133^{\circ} 40'$ west . . . This day was remarkable, by our not seeing a single bird. Not one had passed since we left the land, without seeing some of the following birds, viz. Albatrosses, sheerwaters, pintadoes, blue peterels, and Port Egmont hens. But these frequent every
" part

in the antarctic ocean *, as well as the extremity of America † and that of Africa ‡.

"These birds, like most of those of the South Sea," says the Viscount de Querhoënt, "glance on the surface, and never mount higher, except in rough weather, when they are borne up by the wind." Since they are found at such distances from land, they must rest on the water§: in fact, Albatrosses even sleep on the surface; and Le Maire and Schooten are the only || voyagers who assert their having seen them alight on their ships ¶.

"part of the Southern Ocean in the higher latitudes." *Cook, vol. i. pp. 135 & 136.*—"In latitude $42^{\circ} 32'$ south, longitude 161° west, we often saw Albatrosses and petrels." *Idem.*—"In $41^{\circ} 20'$ south latitude, and 134° west longitude, we saw Albatrosses." *Idem.*—"On the 10th of January, observed at noon, in latitude $54^{\circ} 35'$ S. longitude $47^{\circ} 56'$ west, a great many Albatrosses and blue peterels about the ship." *Vol. ii. p. 209.*—"On the 11th of July, in $34^{\circ} 56'$ south latitude, and $4^{\circ} 41'$ longitude, M. de Querhoënt saw some *croiseurs* and an Albatross.

* In general, no part of New Zealand contains so many birds as Dusky Bay; we have found there Albatrosses, penguins, &c. *Forster.*—There were likewise Albatrosses in New Georgia. *Cook.*

† From our clearing the Strait of Magellan, and during our run along the coast of Chili, we saw a great number of sea-birds, and particularly Albatrosses. *Carteret.*

‡ Mr. Edwards had not seen the narratives of the illustrious navigators just cited, when he said, "These birds are brought from the Cape of Good Hope, where they are numerous. I have never heard that they were frequent in any other part of the world."

§ *Voyage d'un Officier du Roi aux Isles-de-France & de Bourbon, page 68.*

|| See the quotation from Forster, in the Discourse on the Water Fowl.

¶ We saw *jeans-de-genten* of an extraordinary bulk; these are sea-gulls with a body as large as that of a swan, and each wing extending

The celebrated Cook met with Albatrosses differing so much from each other *, that he regarded them as distinct species. But from the descriptions which he gives we are disposed to reckon them only mere varieties. He distinguishes three; *the gray Albatross* †, which appears to be the great species we have just delineated; *the dark brown, or chocolate Albatross* ‡; and

ing not less than a fathom. They alighted on the ship, and suffered the sailors to catch them (in the Strait of Lemaire). *Relation de Le Maire & Schouten*.—The following extract also refers to an Albatross. At some distance from the Cape of Good Hope, as it was a perfect calm, we saw something floating on the water; we let down the yawl into the water, and found this to be two large gulls, which could not rise by reason of their unwieldiness and the want of the assistance of the wind; so they were taken. They were as white as snow; but their wings were gray, and longer than the whole extent of a man's arms; their bill was hooked, and a quarter of a Dutch ell in length (*this appears to be exaggerated*); they bit fiercely with it. Their feet were like those of the swan, and were a span in breadth. They tasted tolerably; we saw also two great whales. *Voyage de Hagenar aux Indes Orientales, dans le Recueil des Voyages qui ont servi à l'Etablissement de la Compagnie; Amsterdam, 1702, tom. v. page 161.*

* In 53° 35' south latitude, there was a great number of Albatrosses of different kinds about the ship. *Cook*.

† "In latitude 67° 5' south, the fog being somewhat dissipated, we resumed our course. The ice islands we met with in the morning were very high and rugged, forming at their tops many peaks; whereas most of those we had seen before were flat at top, and not so high; though many of them were between two and three hundred feet in height, and between two and three miles in circuit, with perpendicular cliffs or sides, astonishing to behold. Most of our winged companions had now left us; the gray Albatrosses only remained; and, instead of the other birds, we were visited by a few antarctic peterels." *Cook, vol. i. p. 256.*

‡ The *Diomedea Spadicea* of Gmelin: "It is chocolate; its front, its orbits, its chin, its throat, the lower coverts of its wings, its belly,

and the *footy* or *brown Albatross*, which the sailors, on account of its sober garb, styled the *quaker-bird* *. The last appears to be the same with the *Cbinese Albatross* represented in the *Planches Enluminees*: it is somewhat larger than the first; its bill seems not to have its futures so strongly marked. Perhaps it is only a young bird, that had not yet attained its proper form or colours. In the same manner, the spotted gray might be the male, and the brown one the female. We are the more disposed to entertain these views, as the large animals, whether quadrupeds or birds, exist generally detached, and seldom include contiguous species. In short, we shall only admit one species of Albatross, until we are better informed.

These birds are no where more plentiful than among the islands of ice in the South Sea †, from

"belly, and its legs, are white; its bill ochry white." Captain Cook met with it in latitude 37° south: it is larger than the *footy* Albatross.

* We also saw, from time to time, two species of Albatrosses, of which we have already spoken, and also a third smaller than these, which we called the *footy*; our sailors named it the *quaker-bird*, because of its dingy colour. Cook.—[This is the *Diomedea Fuliginosa* of Gmelin: "It is brown; its head, its bill, its tail, its wing-quills and its tail, are brown and deep black; the space about its eyes is "white." It is about the bulk of a goose, being near three feet long: it occurs in the latitude of 47°, and in the whole of the antarctic circle.—T.]

† "We began to see these birds about the time of our first falling in with the ice islands; and some had accompanied us ever since. "These, and the dark brown sort with a yellow bill, were the only "Albatrosses that had not now forsaken us." Cook, vol. i. p. 38.

the fortieth degree of latitude to the frozen barriers under the sixty-fifth and sixty-sixth degrees. Forster killed an Albatross with brown plumage in latitude $64^{\circ} 11' *$; and from the fifty-third degree this same navigator saw several of different colours; he found them even in latitude 48° . Other voyagers have met with them at some distance from the Cape of Good Hope †. It seems even that these birds advance sometimes nearer the southern tropic ‡, which appears to be their limit in the Atlantic Ocean: but they have passed it, and have even traversed the torrid zone in the west part of the Pacific Ocean, if the account of Captain Cook's third voyage may be relied on. The vessels pursued a tract from Japan southwards: "We approached," says this relater, "the latitudes where occur the Albatrosses, the bonitoes, the dolphins, and the flying fish."

* The head and the upper side of the wings were somewhat blackish, and the eye-lids white. *Forster*.

† There are several other signs of approach to the Cape of Good Hope; for instance, the sea-fowl met with, and especially the albatros birds with very long wings. *Dampier*.

‡ After the boobies had left us, we saw no more birds till we came up with Madagascar . . . we then saw an Albatross, and daily afterwards we met with more. *Cook*.—We saw an Albatross (*Diomedea Exulans*) in $25^{\circ} 29'$ south latitude, and $24^{\circ} 54'$ longitude, on the 5th of October, the air being sharp and cold. *Idem*.

[A] Specific character of the Wandering Albatross, *Diomedea Exulans*: "It is white, its back and wings lined with black, its bill yellow, its legs carnation, its wing-quills black, its tail lead-coloured and rounded." The bulk of the Albatross is between
that

WANDERING ALBATROSS. 297

that of a goose and of a swan; its weight varying from twelve to eighteen pounds. It is not confined to the antarctic seas; numbers resort every summer to the northern shores in quest of the shoals of salmon, and it is so voracious as sometimes to be taken while it dozes surfeited on the water. It brays like an ass. The flesh of these birds is tough and dry; but the Kamtschadales seek them for the sake of their entrails, which they blow and use as buoys for their nets: their method is to fasten a cord to a large hook baited with a whole fish, which the Albatrosses greedily seize. The bones of the wing serve these people for tobacco-pipes. Such as frequent the seas near the tropics subsist chiefly on flying-fish. Those of the southern hemisphere repair to the shore in the month of October, and build their nest with sedges, like a rick three feet high, leaving a small hole in the top for receiving their egg, which is four inches and a half long, white, with dull spots near the large end. They are much annoyed with hawks.

The GUILLEMOT.

Colymbus Troile. Linn. and Gmel.

Uria Troile. Lath. Ind.

Uria. Gefn. Aldrov. and Briff.

Lomwia. Cluf. Nieremb. Johnst. Charlet. Sibb. and Will.

Lomben. Klein.

The Lavy. Martin's St. Kilda.

The Guillem of Wales, the Sea-hen of Northumberland, the Skout of Yorkshire, and the Kiddaw of Cornwall. Will. Ray, and Edw.

The Foolish Guillemot. Lath. Syn. *

THE Guillemot exhibits the strokes by which nature prepares to close the numerous series of the varied forms of birds. Its wings are so narrow and short, that it scarce can fly above the surface of the sea †; and to reach its nest, which is placed on the rocks, it is obliged to flutter, or rather to leap from cliff to cliff, resting a moment at each throw ‡. This habit, or rather this necessity, is common to it with the puffin, the penguin, and other short-winged birds;

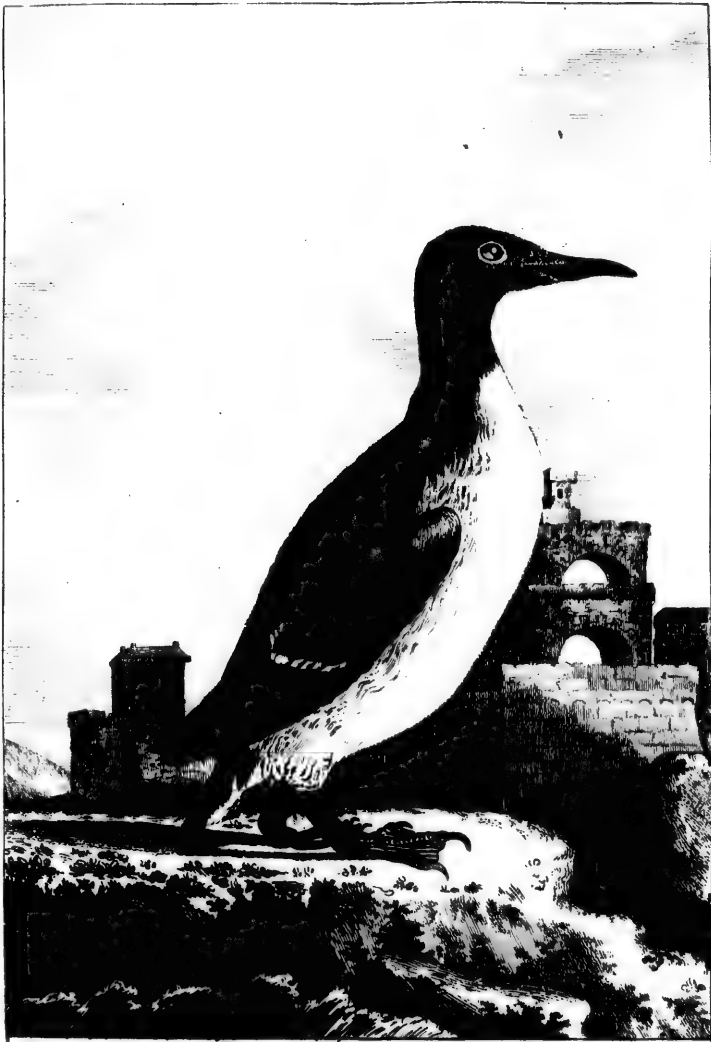
* In the Feroe islands, the Guillemot is called *Lomwier* or *Lomwia*: in Norway *Lomvie*, *Longivie*, *Langvire*, *Lumbe*, and *Stor-fugl*: in Denmark *Aalge*: in Lapland *Doppau*: in Greenland *Tuglok*.—The name *Uria* is given by Gefner, from a strained application of the Greek *ὑρία*, or *diver*: the Greeks could never have known the Guillemot, which is confined to the northern seas.

† They fly very low on the sea, and their flight resembles that of the partridges. *Recueil des Voyages du Nord*, tom. ii. p. 89.

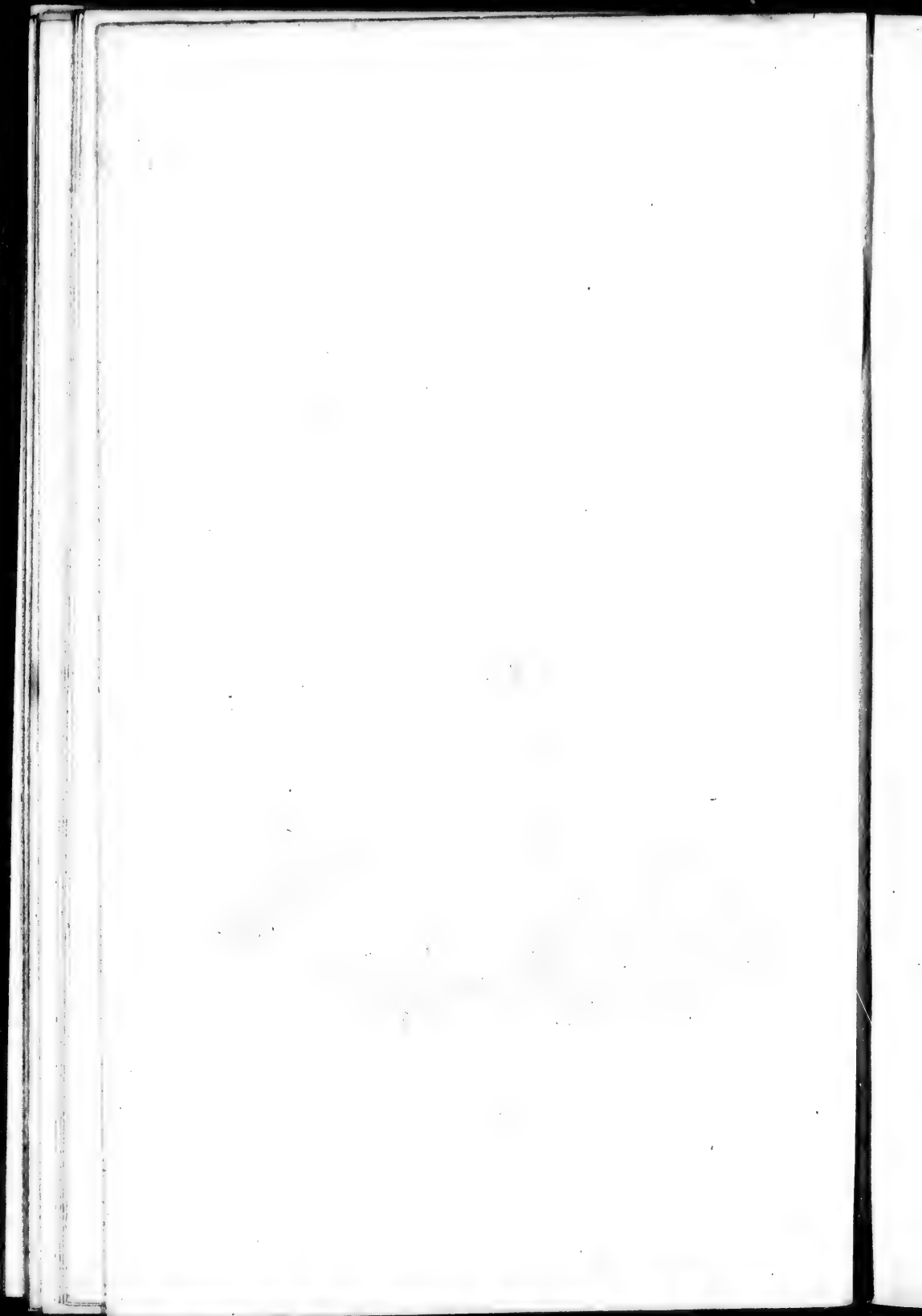
‡ Edwards.

of

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THE FOOLISH GUILLEMOT.



of which the species, almost banished from the temperate countries of Europe, have settled on the extremity of Scotland, and on the coasts of Norway and Iceland, and on the Feroe islands, the last inhabited tracts of our northern world, where these birds seem to struggle against the progress and incroachment of the ice. It is even impossible for them to inhabit those latitudes in the winter: they are much accustomed indeed to the utmost severity of cold, and remain on the floating ice *; but they cannot subsist except in an open sea, and must leave it when frozen over.

It is in this migration, or rather in this dispersion during the winter, and after having quit-
ted their abodes in the region of the north, that they descend along the coasts of England †, where some pairs remain even, and settle on the shelves and desert islets, particularly in a little island, uninhabited for want of springs, and facing Anglesey ‡. There they breed on the projecting crags, as near as they can reach the summit of the rocks §: their eggs are of a blueish colour, more or less clouded with black stains; they are pointed at the end, and very large in proportion to the size of the bird ||, which is

* It was the 3d of May and on the ice, I shot for the first time one of these birds; I afterwards killed several at Spitzbergen, where they are very numerous. *Recueil des Voyages du Nord*, tom. ii. p. 89.

† British Zoology.

‡ Willughby.

§ Clusius.

|| Willughby.

nearly that of the morillon : their body is short, round, and compact : their bill straight, pointed, three fingers long, and black throughout ; the upper mandible has at its point two little productions, which on each side jut over the lower. This bill is in a great measure covered with a velvet down, of the same brown cinereous or smoky black that covers all the head, the neck, the back, and the wings : all the fore side of the body is of a snowy white : the feet have only three toes, and are placed quite behind the body, a position which makes the bird as agile in swimming and diving, as tardy in walking, and feeble in flying. Its only retreat, when pursued or wounded, is under the water, or even under the ice* ; the danger must be urgent however to rouse it ; for it is not a shy bird, but suffers a person to approach and catch it with great ease†. This appearance of stupidity has given origin to the English name *Guillemot*.

* They swim under water as fast as we could row the boat ; when pursued or fired at, they plunge, and continue very long concealed under water ; so that as they pass often under the ice, they must then be undoubtedly suffocated. *Recueil des Voyages du Nord*, tom. ii. p. 89.

† Ray.

[A] Specific character of the Foolish Guillemot, *Colymbus Troile* : " Its body is black ; its breast and belly snowy ; its secondary wing-quills tipped with white." Its length is seventeen inches ; its alar extent twenty-seven and a half ; its weight twenty ounces. It lays a large egg, three inches long, and of a various colour. It winters on the coast of Italy.—Gmelin and Latham make the Guillemot to be the lumme of the northern nations.

The LITTLE GUILLEMOT,

IMPROPERLY CALLED

The GREENLAND DOVE.

Colymbus Grylle. Linn. and Gmel.

Uria Grylle. Lath. Ind.

Uria Minor Nigra. Briss.

Columba Grœnlandica dicta. Will. Ray, Sibb.

Columbus Grœnlandicus. } Klein.

Plautus Columbarius.

Turtur Maritimus Insulæ Baf. Sibb. Hist. Fife.

Kaiaver, vel Kaior. Hist. Kamtsch.

The Scraber. Martin's St. Kilda.

The Greenland Dove, or Sea Turtle. Alb. and Will.

The Black Guillemot. Penn. and Lath. *

IN those frozen countries, where stern Boreas reigns alone, and where the gentle zephyrs never sport, the sweet murmurs of the tender dove are no more heard. The charming votary of love shuns such chilling scenes; and the pretended dove of Greenland is a melancholy water-fowl, which can only swim and dive, screaming incessantly, in a dry re-iterated tone, *rottetet, tet, tet, tet* †. It bears no resemblance to our pigeon, except in bulk, which is nearly the same

* In Swedish *Sjoe-orre*, *Griſſa*: in the island of Oëland *Alie*; in that of Gothland *Grylle*; and in the Feroe isles *Fuldkoppe*: in Iceland *Teiſta*: in Norway *Teiſte*: in Greenland *Sarpak*.

† Klein.

in both *. It is a Guillemot smaller than the preceding, and its wings also shorter in proportion. Its legs are placed in the same manner in the abdomen: its walk is as feeble and tottering †. Its bill only is shorter, more inflated, and not so much pointed. Its feathers are all unwebbed, and resemble silky hair ‡. The colours are only smoky black, with a white spot on each wing, and more or less of white on the fore side of the neck and of the body: this last character varies to such degree, that some individuals are entirely black, and others almost entirely white §. "It is in winter," says Willughby, "that they are found completely white; and as, in the transition from one of these garbs to the other, they must necessarily be more or less mixed or variegated with black and white, we may reckon the *spotted Greenland dove* of Edwards to be the same species with the two *little Greenland doves* represented in his ninety-first plate; because they differ not from each other, or from the preceding, unless in the greater or less mixture of black and white in their plumage."

These fly commonly in pairs, razing the surface of the sea, like the great guillemot, with a

* Ray.—According to Martens, the sailors gave it this name, because it pules like young doves; yet there is little resemblance between puling and the cry which Klein expresses.

† Linnæus.

‡ Klein.

§ Willughby and Klein.

brisk flapping of their narrow wings*. They place their nests in the crevices of the low rocks †, from which the young can throw themselves into the sea, and avoid becoming the prey of the foxes ‡, that incessantly watch them. These birds lay only two eggs: some of their nests are found on the coasts of Wales and of Scotland §, and also in Sweden. in the province of Gothland ||. But the far greater number breed in much more northern countries, in Spitzbergen and in Greenland, the principal abode of both the great and the little Guillemot ¶.

To the little Guillemot we shall refer the *kaiover* or *kaior* of Kamtschatka, since Kracheninikow applies to it, after Steller, the denomination of *the Greenland pigeon of the Dutch*. "It has," says he, "its bill and legs red; it builds its nest on the top of rocks, whose bottom is washed by the sea, and screams or whistles very loud, whence the Cossacs have stiled it *ivofkik*, or the postilion."

* Ray.

† Linnæus.

‡ Anderson.

§ Klein.

|| Linnæus.

¶ Ray.

[A] Specific character of the Black Guillemot, *Colymbus Grylle*: "Its body is deep black, the coverts of its wings white." Its length is fourteen inches, and its alar extent twenty-two. For the most part, these birds fly in pairs: they nestle under ground, and lay an egg as large as a hen's, and of an ash-colour. They occur in St. Kilda, on the Bass isle in the Firth of Forth, in the Farn islands off the Northumbrian coast, and on the Llandidno in Caernarvonshire.

The PUFFIN

LE MACAREUX. *Buff.*

Alca Arctica. Linn. and Gmel.

Fratercula. Briss.

Anas Arctica. Sibb. Will. and Ray.

Plantus Arcticus. Klein.

Lunda. Cluñus, Nierem. and Johnst.

Puffinus Anglicus. Gesner and Aldrovandus.

The Bowyer. Martin's St. Kilda.

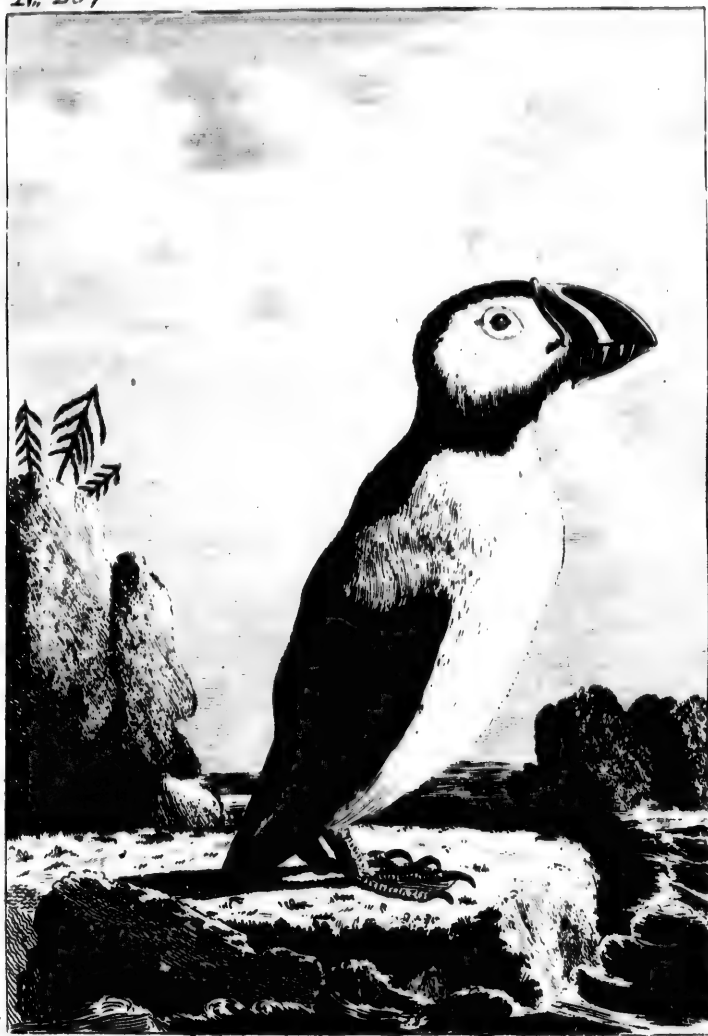
In North Wales, Puffin; in South Wales, Golden-head, Bottle-nose, and Helegug; in Yorkshire, near Scarborough, Mullet: in Durham, at the mouth of the Tees, Coulterneb.*

THE bill is the principal organ of birds, the instrument by which their powers and faculties are exercised; it serves as a mouth, as a hand, as an arm. It is that part of their body whose structure the most determines their instincts, and directs their habits of life: and if the winged tribes disperse through the air, on the sea, and on the land, if they engage in an endless variety of pursuits, it is because nature has bestowed on their bill an infinite diversity of form. A sharp, lacerating hook arms the head of the fierce birds of prey; their appetite for flesh and their thirst for blood, joined to the

* Anderson calls the Puffin *the Greenland parrot*; and in collections of voyages it is often named *the diver parrot, the ducker parrot, and the thick-billed sea-maggie*. In the Kamtschadale language it is termed *Ypatka*: in the Norwegian and in the Feroe islands *Lunde, Soë-Papegay*; the chicken *Lund-toëller*: in Greenland *Killengak*.

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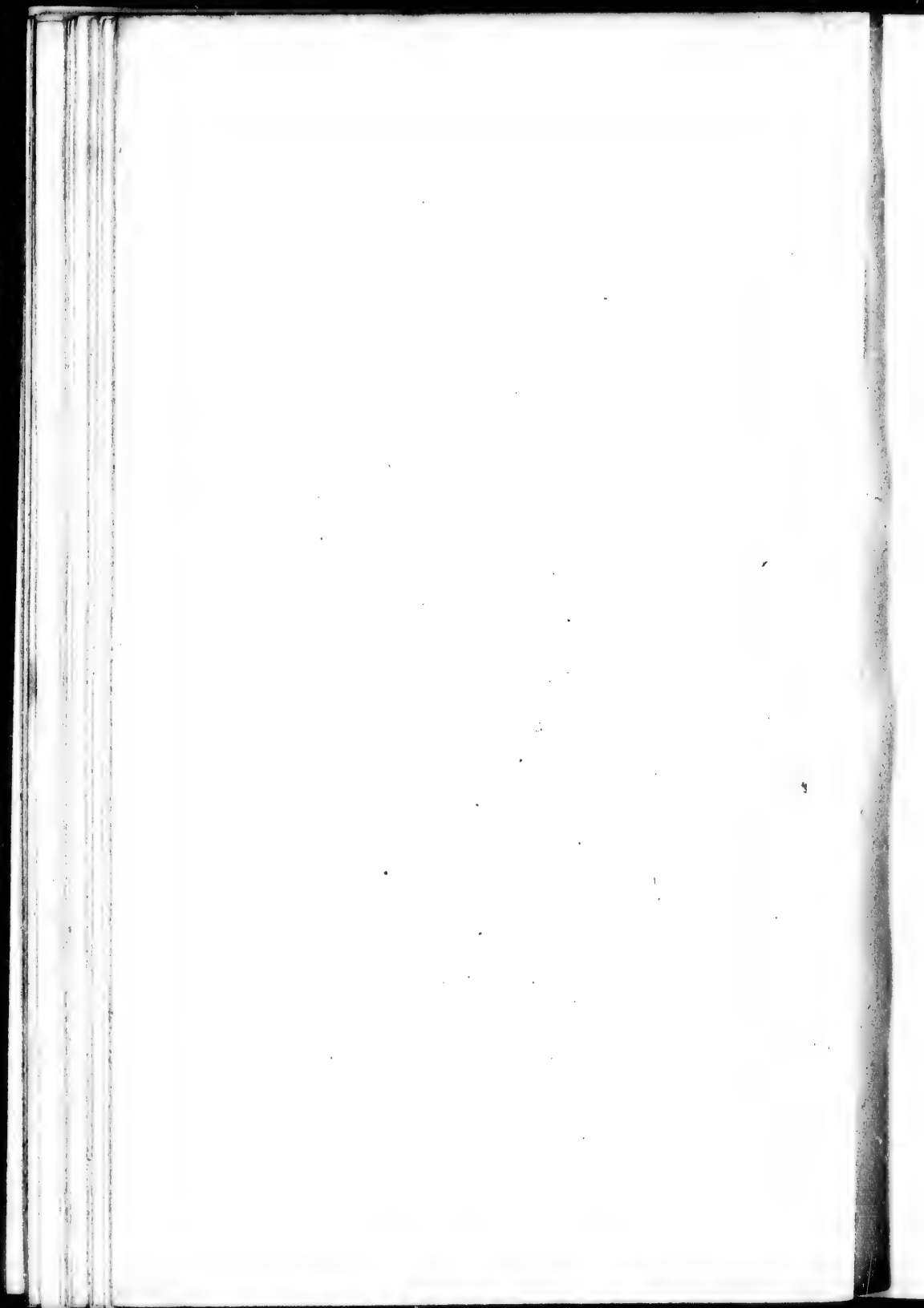
THE PUFFIN.

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means of satisfying these, precipitate them from their towering heights upon all other birds, and even upon all the weak and timorous animals, which are equally their victims. A bill shaped like a broad and flat spoon, induces another genus of birds to gather their subsistence at the bottom of the water: while a conical bill, short and truncated, enables the gallinaceous kind to pick up the seeds on the ground, disposes them to assemble round us, and seems to invite them to receive their food from our hands. A bill, fashioned like a slender pliant probe, which lengthens out the face of the curlews, of the woodcock, of the snipe, and of most other waders, constrains them to inhabit marshy grounds, there to dig in the soft mud and the wet slime. The sharp taper form of the woodpecker's bill condemns it to bore the bark of trees. And finally, the little awl-shaped bill of most of the field-birds permits them only to catch gnats and other minute insects, and forbids every other sort of food. Thus the different form of the bill modifies the instincts, and gives rise to most of the habits of birds *; and this structure varies infi-

* It is proper to put the reader on his guard against this specious sort of declamation, in which the materialists have so much indulged. If an animal were directed by its organization to follow its particular mode of life, it must be supposed to make trial of every possible situation, and to adopt that which, on due experience, is found to be the best suited to its nature. But this hypothesis is completely absurd. Prior to all reflection, instinct leads irresistibly to a certain course of action, to which the corporeal structure is in general admirably adapted.—T.

nately, not only by shades, as in all Nature's productions, but even by steps, and sudden leaps. The enormous size of the bill of the toucan, the monstrous swelling of that of the calao, the deformity of that of the flamingo, the strange shape of the bill of the spoonbill, the reversed arch of that of the avoet, &c. demonstrate sufficiently that all the possible figures have been traced, and every form moulded. That for completing this series nothing may be imagined wanting, the extreme of all the fashions is exhibited in the vertical blade of the Puffin's bill. It exactly resembles two very short blades of a knife applied one against the other by the edge: the tip is red, and channelled transversely with three or four little furrows, while the space near the head is smooth and tinged with blue. The two mandibles being joined, are almost as high as they are long, and form a triangle very nearly isocles: the circuit of the upper mandible is edged near the head, and as it were hemmed with a ledge of a membranous or callous substance, interspersed with little holes, and whose expansion forms a rose on each corner of the bill *.

This

* M. Geoffroy de Valognes, who appears to me to be a good observer, has been so obliging as to send me the following note on the subject of the Puffin:

"I received," says he, "a Puffin that had been taken the beginning of this month (of May) in its passage on our coasts; this bird was viewed with astonishment, even by persons who oftener frequent the sea-shore; which makes me think that it is a stranger to this country.

"The

This imperfect analogy to the bill of the parrot, which is also edged with a membrane at its base, and the no less distant analogy to the short neck and the round shape, have procured the

"The position of the legs of the Puffin near the anus leads me to presume that it walks with difficulty, and that it is more formed for swimming on the water: cinereous, black, and white, are sensibly contrasted on its plumage; the first of these colours marks the cheeks, the sides of the head, the under part of the throat, where it takes a deeper shade; the second prevails on the head, the neck, the back, the wings, the tail, and extends to the throat, where it forms a broad collar, that divides at this place the gray from the pure white, which alone appears on the under side of the body, where the feathers conceal from view a thick gray down which clothes the belly: the black on the upper side of the head grows a little dilute near the origin of the neck, on the quills of the wings, and at the termination of the feathers which cover the back; on the tip of the wings there is a white border, which is not very apparent unless they are spread.

"The bill is longer than it is broad, if we measure from its origin; its form is almost triangular, the two mandibles are movable; the iron-gray, which partly paints it, is separated as it were by a white semi-circle from a bright red that covers the point, and completes the decoration: the upper mandible presents four streaks, the lower three, which correspond to the three last of the upper; all these streaks form a sort of semi-circles: the upper mandible has at its base a little roll, on which there are small holes disposed regularly; from some of these holes very small feathers grow; the nostrils are placed on the edges of the upper mandible, and extend three lines in the length of the bill: I perceived on the palate of the bird several rows of fleshy points directed towards the opening of the throat, of which the transparent and glossy extremity seemed to be somewhat harder than the rest; the eyes, edged with vermillion, have this peculiarity, that they occupy the centre of a gray triangular excrescence: the legs are short, and of a bright orange like the feet; the nails are black and shining, that of the hind toe is the longest and broadest." *Extract of a letter from M. Geoffroy, to M. le Comte de Buffon, dated from Valognes, the 8th of May, 1782.*

Puffin the name of *sea parrot* ; a denomination as improper as that of *sea dove* for the little guillemot.

The Puffin has not more of wings than this guillemot, and in its short, skimming flutters, it assists itself by the rapid motion of its feet, with which it only razes the surface* : and hence to support itself it has been said to strike the water continually with its wings†. The quills are very short, as well as those of the tail‡ ; and the plumage of the whole body is rather down than real feathers. With respect to its colours, “ imagine,” says Gefner, “ a bird clothed in a “ white robe, with a black frock or mantle, and “ a cowl of the same, and you will have a picture “ of the Puffin, which, for that reason, I call “ the little monk, *fratercula*.”

This little monk lives on prawns, shrimps, star-fish, and sea-spiders, and several other sorts of fish, which it catches by diving in the water, beneath which it willingly retires§ and shelters itself from danger. It is said even to drag its enemy, the raven, under the flood|| : such exertions of force or dexterity seem to exceed

* Gefner.

† Willughby.

‡ Twelve are reckoned to be the number, though Edwards counted sixteen in a subject of this species.

§ *Recueil des Voyages du Nord*, tom. iii. p. 102.

|| The bill of the sea parrot is an inch broad, and so sharp, that it is able to master its enemy, the raven, and to drag it under water. *Hist. Gen. des Voy.* tom. xix. p. 46.

the strength of its body, which is not larger than that of a pigeon * ; they must therefore be ascribed to the power of its weapons, and the bill is indeed formidable by its sharp blades and its terminating hook.

The nostrils are pretty near the edge of the bill, and appear like two oblong slits : the eyelids are red ; on the upper one is a little excrescence of a triangular shape, and on the lower is a similar excrescence, but of an oblong form : the feet are orange, furnished with a membrane between the toes ; the Puffin, like the guillemot, wants the hind toe ; the nails are very strong and hooked : as its thighs are short, and concealed under the abdomen, it is obliged to keep quite erect, and seems to totter and rock in its walk †. It is accordingly never found on land, except retired in caverns or in holes excavated under the shores ‡, and always in such situations, that it can throw itself into the water, as soon as the calm invites its return : for it has been remarked, that these birds cannot remain on the sea, or fish, except when it is smooth ; and that if they be overtaken by a storm, either on their departure in autumn or on their return in spring, numbers perish. The winds cast these dead

* A foot from the point of the bill to the end of the tail ; thirteen inches from the bill to the nails.

† " It walks turning every moment from side to side." *Voyage du Nord.*

‡ Gesner.

Puffins ashore*, sometimes even on our coasts†, where these birds are seldom seen.

They constantly inhabit the most northern islands‡ and promontories of Europe and Asia, and probably also those of America, since they are found in Greenland as well as in Kamtschatka§. They leave the Orknies and other islands near Scotland regularly in the month of August; and it is said, that in the first days of April a few come to reconnoitre the places, and in two or three days after retire to inform the main body, which they lead back in the beginning of May||.

* Willughby.

† “The north wind has sent us this winter thousands of dead and drowned Puffins. These every year take a sea voyage, about the end of February or the beginning of March; when it is stormy, many are drowned, and at all times the ravenous birds devour great numbers of them. Probably this passage is laborious, for all the bodies of these drowned birds are constantly very lean. These birds are found on the coasts of Picardy also in the month of August, but are then few in number. The male differs not from the female, except that his colours are deeper: the old ones have their bill broader.” *Letter of M. Baillon, dated Montreuil-sur-mer, 10th of April, 1781.*—“The Puffin is known on this coast (of Croisic) under the name of *gode*, and occurs at all seasons; it seldom comes to land, and then only on the nearest shore: it nestles in the holes of craggy rocks, especially near Belle-île, at the place called *the Old Castle*; it there lays on the bare ground three eggs. It is found in the whole of the gulf of Gascony.” *Letter from the Viscount de Querboënt, 29th of June, 1781.*

‡ In the islands Anglesey, Bardsey, Caldey, Priestholm, Farn, Godreve, the Scillys, and others. *Willughby.*

§ The Kamtschadales call the sea-diver *yatka*: it occurs on all the coasts of that peninsula. *Hist. Gen. des Voy. tom. xviii. p. 270.*

|| Willughby.

These

These birds build no nest; the female lays on the naked ground and in holes, which they excavate and enlarge: they have only one egg, it is said, which is very large, much pointed at the end, and of a gray or grayish colour *. The young that are unable to follow the troop in their autumnal retreat are abandoned †, and perhaps perish. On their return in spring, these birds do not all occupy the most northern spots; small flocks halt on different islets along the English coasts, and they are found with the guillemots and the penguins on the *Needles*, which lie on the west side of the Isle of Wight. Edwards passed several days among these rocks to observe and describe the birds ‡.

* Willughby.

† *Idem.*

‡ He represents it as one of the most astonishing works of nature. "I have sometimes admired," says he, "the palaces of kings; the antique majesty of our old cathedrals have often inspired me with religious fear: but when from the ocean I saw displayed this vast, stupendous work of nature, how little and diminutive appeared all the monuments of human power! Imagine a mass of rocks six hundred feet in height, and stretching about four miles in length, flanked with obelisks and shapeless columns, which seemed to rise out of the sea, and which were indented by the dark mouths of caverns formed by the billows: if from this gloomy depth the affrighted eye measures the broken perpendicular sides of these rocks, whose projecting cliffs seem to threaten every moment to plunge the spectator into the abyss: if retiring a quarter of a mile to enjoy a full view of this immense rock, we fire a cannon, the air will be darkened with a black cloud formed by the rising of thousands of birds from all the crags and ledges, and which, with some sheep, are the only inhabitants of this rock."

312 PUFFIN OF KAMTSCHATKA.

[A] Specific character of the Puffin, *Alca Arctica*: "Its bill is compressed, channelled on each side with four furrows; its orbits and its temples white; its upper eye-lid pointed." Its length is twelve inches, its alar extent twenty-one inches, its weight twelve ounces. They arrive on several of the coasts of Great Britain and Ireland in April, and take possession of the rabbit-burrows, where they lay a single egg, white, and as large as a hen's. They bite very hard when disturbed; their voice is disagreeable, and seems as if it cost them an effort. They retire in August.

The PUFFIN of KAMTSCHATKA.

Alca Cirrbata. Gmelin and Pallas,

Igirma. Hist. Kamtsch.

The Tufted Auk. Penn. and Lath.

"THE Kamtschadale women," says Steller, "make themselves a head-dress of a glutton's skin, fashioned like a crescent, with two white ears or beards, and say, that in this ornament they resemble the *mitchagatchi**, which is a bird quite black, and hooded with two pendulous crests or tufts of white filaments, which look like tresses on the sides of the neck." It is easy to perceive, that the bird alluded to is the Kamtschadale Puffin; and the *kallingak* of the Greenlanders appears to be

* Or *Monichagatha*, for so it is written in page 270 of the nineteenth vol. of the *Hist. Gen. des Voy.* while in page 253 of the same volume it is written *Mitchagatchi*.

the same *. Like this it has the two white tresses and cheeks, and the rest of the plumage black or blackish, with a deep blue tint on the back, and dull brown on the belly: its bill is furrowed on the upper blade, and the nostrils are situated near the edge: lastly, it has little roses on the corners of the bill, as in the common puffin; only the size of the *kallingak* or Greenland Puffin is somewhat smaller than that of the Kamtschadale Puffin.

* The Greenlanders know a sea-parrot, which they call *kallin-gak*, and which is entirely black, and as large as a pigeon. *Idem*, p. 46.

[A] Specific character of the *Alca Cirrhata*: "It is entirely black, has four furrows in its bill; the sides of its head, the space about its eyes, and the corner of its throat, are white; a yellowish longitudinal tuft from the eye-brows to the nape." Its flesh is hard and insipid, but the Kamtschadales use its eggs. The bills, mixed with those of the common puffin and the hairs of the seal, were formerly regarded by these rude people as a powerful amulet.

The PENGUINS and the MAN- CHOTS;

or, The BIRDS WITHOUT WINGS.

IT is difficult to separate in imagination the idea of bird from that of wings: yet is the faculty of flying not essential to the feathered race. Some quadrupeds are provided with wings, and some birds are destitute of them. A wingless bird would seem a monster produced by the neglect or oversight of nature; but what is apparently a derangement, an interruption of her plan, does really fill up the order of succession, and connects the chain of existence. As she has deprived the quadruped of feet, she has also deprived the bird of wings; and it is remarkable that the same defect begins with the land birds, and ends in the water fowl. The ostrich may be said to have no wings, the cassowary is absolutely destitute of them; it is covered with hair instead of feathers. These two great birds seem in many respects to approach the land animals; while the Penguins and Manchots appear to form the shade between birds and fish. Instead of wings they have little pinions, which might be said to be covered with scales rather than feathers,

thers, and which serve as fins *; their body is large, compact, and cylindrical, behind which are attached two broad oars, rather than two legs: the impossibility of advancing far into the land, the fatigue even of remaining there, otherwise than by lying; the necessity, the habit of being almost always at sea, their whole œconomy of life, mark the analogy between the aquatic animals and these ~~stumps~~ birds, strangers to the regions of air, almost equally exiled from those of the land.

Thus between each of the great families, between the quadrupeds, the birds, and the fishes, nature has placed connecting links that bind together the whole: she has sent forth the bat to flutter among the birds, while she has imprisoned the armadillo in a crustaceous shell. She has moulded the whale-kind after the quadruped, whose form she has only truncated in the walrus: the seal, from the land, the place of his birth, plunges into the flood, and joins the cetaceous herd, to demonstrate the universal consanguinity of all the generations that spring from the bosom of the common mother: finally, she

* They seem to form a middle species between the birds and the fishes; for the feathers, especially those of their wings, differ little from scales, and these wings, or rather pinions, must be regarded as fins. *Cook*.—The wings of these animals are without feathers, and serve only as fins; they live most of their time in the water. *De Genne*s.—These stumps serve as fins when they are in the water. *Dampier*.



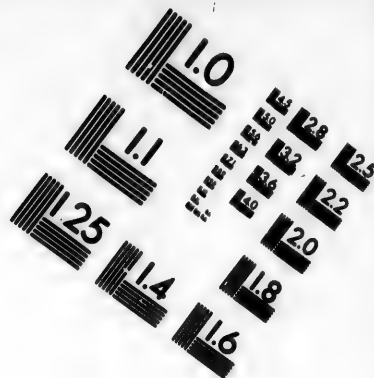
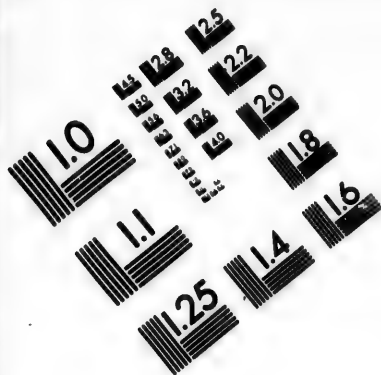
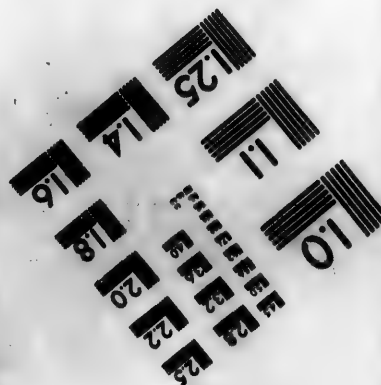
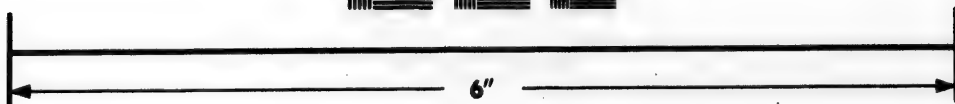
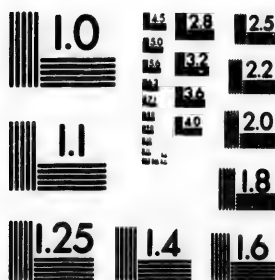


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has produced birds partaking of the instincts and œconomy of fishes. Such are the two families of Penguins and Manchots, which ought however to be distinguished, as they are actually in nature, not only by conformation, but by difference of climates.

The name of Penguin has been given indiscriminately to all the species of these two families, which has introduced confusion. We may see in Ray's Synopsis what difficulties ornithologists have met with to accommodate the characters ascribed by Clusius to his Magellanic Penguins, with the characters observed in the arctic Penguins. Edwards is the first who reconciled these contradictions: he justly remarks, that far from thinking, with Willughby, that the northern Penguin was the same species as the southern, one should rather be disposed to range them in two different classes; the latter having four toes, and the former having the traces only of the hind toe, and *having its wings covered with nothing that can be called feathers*; whereas the northern Penguin has very small wings, covered with real feathers.

To these differences we shall add another, still more essential, that, in the species of the north, the bill is furrowed with channels on the sides, and raised with a vertical blade; while, in those of the south, it is cylindrical and pointed. Thus all the *Penguins* of the southern voyages
are

are *Manchots* *, which are distinguished from the real arctic *Penguins*, by essential differences in the structure, as well as by the distance of the climates.

We proceed to prove this position by a comparison of the relations of voyagers, and by an examination of the passages in which our Manchots are mentioned under the name of *Penguins*. All the navigators of the South Sea, from Narborough to Admiral Anson, Commodore Byron, M. de Bougainville, Messieurs Cook and Forster, agree in ascribing to these Manchots the same characters, and all different from those of the arctic *Penguins* †.

“ The genus of the *Penguins* (Manchots)” says Forster, “ have been improperly confounded “ with that of the *diomedea* (albatross) and that “ of the *phaëton* (tropic bird). Though the

* *Manchot*, in French, signifies *maimed*. I have, for the sake of perspicuity, adopted the term.—T.

† The most singular birds that are seen on the coast of Patagonia have, instead of wings, two stumps, which can be of no service but in swimming; their bill is *straight* like that of an *albatross* (which points out the elongated cylindrical form). *Anson*.—The Penguin, instead of wings, has two flat stumps, like the fins of fish; and its plumage is only a kind of short down . . . its neck is thick, its head and bill *like that of a crow*, except that the point turns a little downwards. *Narborough*.—In this country (Lobos-del-mar, in the Pacific Ocean) there are many birds, such as *boobies*, but especially *Penguins*, of which I have seen prodigious numbers in all the South Seas, on the coast of the country lately discovered, and at the Cape of Good Hope. The Penguin is a sea-bird, about as large as a duck, having its feet shaped the same, but its *bill pointed*; they do not fly, having stumps rather than wings. *Dampier*.

“ thickness

318 PENGUINS AND MANCHOTS.

“ thickness of the bill varies, it has the same
 “ character in all (cylindrical and pointed) ; ex-
 “ cept that in some species the end of the lower
 “ mandible is truncated: their nostrils are always
 “ linear slits, which again proves them to be
 “ distinguished from the *albatrosses*: they all
 “ have exactly the same form of feet (three toes
 “ before, without any trace of a hind toe) : the
 “ stumps of the wings are spread into fins by a
 “ membrane, and covered with plumules laid so
 “ near each other as to resemble scales; this
 “ character, as well as the shape of their bill and
 “ feet, discriminates them from the *alcæ* (the auks
 “ or true penguins) which are unable to fly, not
 “ because their wings absolutely want feathers,
 “ but because these feathers are too short.”

It is the Manchot, therefore, that we may particularly stile the *winglefs bird*; and at first sight we might also call it the *featherless bird*. In fact, not only the hanging pinions seem covered with scales, but all the body is invested with a compressed down, exhibiting all the appearance of a thick, shaved beard, sprouting in short pencils of little glossy tubes, and which form a coat of mail impenetrable by water.

Yet, on a close inspection, we perceive in these *plumules*, and even in the scales of the pinions, the structure of a feather, that is, a shaft and webs *. Wherefore Feuillée has reason to find

* Edwards.

fault with Frezier, for asserting, without modification, that " the Manchots were covered with " hair exactly like that of sea wolves."

On the contrary, the northern Penguin is clothed with real feathers, short indeed, especially on the wings, but which present unequivocally the appearance of feathers, and not that of hair, or down, or scales.

Here then is a distinction well established, and founded on essential differences in the exterior conformation of the bill, and in the plumage. The *Penguins* also inhabit the most northern seas, and advance only a short way into the temperate zone : but the *Manchots* fill the vast Pacific, and occur in most of the islets that are scattered through that immense ocean ; they occupy, as their last asylum, the formidable range of ice, which incrusts the whole region of the south pole, and advances as far as the sixtieth and fiftieth degrees of latitude.

" The body of the Penguins (Manchots)" says Forster, " is entirely covered with oblong " *plumules*, thick, hard, and shining . . . laid as " near each other as the scales of fish . . . this " cuirass is necessary to them, as well as the " thickness of fat with which they are lined, and " enables them to resist the cold ; for they live " continually in the sea, and are confined especially to the frigid and temperate zones, at " least I have never known them between the " tropics."

According

fault

According to this observer, and the illustrious Captain Cook, amidst the southern ice, where they penetrated with more intrepidity, and farther than any navigator before them, Manchots were every where found, and the more numerous, the higher the latitude and the colder the climate *, as far as the antarctic circle; on the borders of the icy mountains †, on the floating shoals ‡, at Statenland §, at the Sandwich islands, countries

* *Penguins* seen in latitude $51^{\circ} 50'$ south. *Cook*.—In the latitude of $55^{\circ} 16'$ south, we saw many whales, *Penguins*, and some of the white birds. *Id.* vol. i. p. 26.—In $55^{\circ} 31'$ south latitude, we saw some *Penguins*. *Id.*—In $63^{\circ} 25'$, we saw a *Penguin* and a guillemot. *Id.*—In 58° south latitude, we killed a second *Penguin*, and some petrels. *Id.*

† On approaching the ice islands (under the antarctic circle) we heard *Penguins*. *Cook*.—Being in $55^{\circ} 51'$, we saw several *Penguins* and a snowy petrel, which we took to be the forerunners of the ice. *Id.*—On the 24th of January, our latitude was $53^{\circ} 56'$, and our longitude $39^{\circ} 24'$; we had round us a great number of blue petrels and *Penguins*. *Id.*

‡ Upon our getting among the ice islands, the albatrosses left us; that is, we saw but one now and then. Nor did our other companions, the pintadoes, sheerwaters, small gray birds, fulmars, &c. appear in such numbers; on the other hand, *Penguins* began to make their appearance. Two of these were seen to-day . . . we passed no less than eighteen ice islands, and saw more *Penguins* . . . we saw many whales, *Penguins*, some white birds, pintadoes, &c. *Cook.* vol. i. pp. 23 & 24.—The sea was strewed (latitude $60^{\circ} 4'$ south, longitude $29^{\circ} 23'$ west) with large and small ice; several *Penguins*, snow peterels, and other birds were seen, and some whales. *Id.* vol. ii. p. 223.—In 66° latitude, we saw many *Penguins* on the ice islands, and some antarctic petrels in the air. *Id.*—A number of *Penguins*, sitting on pieces of ice, passed near us (in latitude 61° , and longitude 31°). *Id.*

§ *Cook's Second Voyage*.—The cold was intense, the two islands were

countries desolate, deserted, without verdure, buried beneath eternal snow. "We saw them, "with the petrels, inhabit regions now inaccessible to all other species of animals, where "these birds alone seemed to resist destruction "and annihilation, in places where animated "nature has already sunk into its tomb. *Pars "mundi damnata a rerum naturâ, æterna mersa "caligine* *."

When the shoals of ice on which the Manchots settle are drifted, they remain on them, and are thus transported to immense distance from land †. "We saw," says Captain Cook, "on "the summit of the ice island, which passed near "us, eighty-six *Penguins* (Manchots). This "shoal was about half a mile in circumference, "and upwards of an hundred feet high, for it "withheld the wind some minutes from our "sails. The side which these *Penguins* occupied rose sloping from the sea, so that they "climbed with a gradual ascent." Hence this great navigator justly concludes, that the occurrence of the Manchots at sea is no certain token

were covered with hoar-frost and snow, and no trees or shrubs appeared; we saw no living creature, except the shags and the *Penguins*; the last were so numerous, that they seemed to incrust the rock. *Third Voyage*.

* i. e. *A part of the world condemned by nature, plunged in eternal darkness.* Pliny.

† We found *Penguins*, petrels, and albatrosses, six or seven hundred leagues in the middle of the South Sea.

of the proximity of land, unless in latitudes where there is no floating ice.

It appears also, that they can perform distant excursions by swimming, and thus pass nights as well as days at sea*. The element of the water agrees better than that of the land with their dispositions and their structure: on shore their pace is slow and heavy; as their legs are short and placed quite behind their belly, they are obliged to maintain an erect posture, and their large body extends in the same perpendicular with their neck and head; "in this attitude," says Sir John Narborough, "they would be taken at a distance for young children with white bibs †."

But if they are heavy and awkward on land, as much are they lively and alert in the water: "They dive, and continue a long time under the water," says Forster, "and when they rise again, they dart straight up to the surface, with such prodigious swiftness, that they are

* "The preceding evening, three Port Egmont hens were seen; this morning another appeared. In the evening, and several times in the night, *Penguins* were heard . . . Our latitude now was $49^{\circ} 53'$ south, and longitude $63^{\circ} 39'$ east." *Cook, Vol. i. p. 50.*—
"In latitude $57^{\circ} 8'$ south, longitude $80^{\circ} 59'$ east, we saw one *Penguin*, which appeared to be of the same sort which we had formerly seen near the ice. But we had now been so often deceived by these birds, that we could no longer look upon them, nor indeed upon any other oceanic birds, which frequent high latitudes, as sure signs of the vicinity of land." *Ibid. p. 53.*

† They walked erect, letting their fins hang like arms; so that at a distance they might be taken for pygmies. *Dampier.*

"difficult

"difficult to shoot." The sort of cuirass also, or coat of mail, hard, shining, and scaly, with which they are clothed, and their very firm skin, resist often the lead *.

Though the Manchots lay but two eggs, or three at most, or even only one †, yet as they are never disturbed on the desert lands where they assemble, and of which they are the sole and peaceful possessors, they are very numerous. "We went ashore on an island ‡," says Narborough, "where we caught three hundred *Penguins* (Manchots) in the space of a quarter of an hour. We could as easily have taken three thousand, had the boat been capable of holding them. We drove them before us in flocks, and knocked them on the head with a stick."

"These *Penguins*, (Manchots)" says Wood, "which are improperly ranked among the birds, since they have neither feathers nor wings, hatch their eggs, as I have been assured, about the end of September or the beginning of October; in that season, as many might be taken as would victual a fleet. . . . On our return to Port Desire, we gathered about an hundred thousand of these

* We wounded one, and following close, we fired at it more than ten times with small shot, and though they took effect, it was necessary to make a discharge with ball. *Forster*.

† Forster.

‡ In sight of Port Desire, on the coast of Patagonia.

"eggs, some of which were kept on board near
"four months without spoiling."

"On the 15th of January," says the compiler of the Voyages to the South Sea, "the
"vessel bore towards the *great isle of Penguins*,
"for the purpose of catching these birds. In
"fact, we found there such prodigious numbers,
"that they might have supplied five-and-twenty
"ships, and we took nine hundred in two
"hours."

No navigator neglects an opportunity of providing himself with these eggs, which are said to be very good *, and with the flesh even of these birds †, which cannot indeed be excellent, but

* Their flesh is but indifferent food, but their eggs are excellent. *Dampier*.

† On the 18th, we cast anchor in the second bay of Magellan's Straits, opposite to the *isle of Penguins*, where the boats were soon loaded with these birds, which are larger than ducks. *Adams*.—We returned about the middle of September to Port Desire, to procure new store of seals, of *Penguins*, and of the eggs of these birds. *Narborough*.—A little island in the entrance of the Bay of Saldana is stocked so plentifully with seals and *Penguins*, as to afford refreshment to the most numerous fleet. *Hist. Gen. des Voy. tom. i. p. 384*.—The *Penguin* is better than the diver of the Scilly islands; it has a fishy taste. To render it palatable, it is skinned, because of its excessive fat; upon the whole it is tolerable food, when roasted, boiled, or baked; especially roasted. We salted twelve or sixteen barrels of them, to serve us instead of cured beef. The taking of them afforded much diversion; indeed nothing could be more amusing, whether pursuing them, intercepting them as they want to gain their burrows, when they often tumble into the holes, or surrounding them and knocking them on the head with sticks, for blows on the rest of the body will not kill them, and besides will blemish the flesh, which is to be preserved salted. . . . These miserable

but serves as a resource on coasts destitute of every other refreshment *. The meat is said not to taste of fish, though in all probability the Penguins subsist on fish †: and if they are seen to frequent the tufts of coarse grass, the last vestiges of vegetation that remain in those frozen lands, they are induced less, it is supposed, for the sake of food ‡ than for that of shelter.

Forster has described their settlement in this sort of asylum, which they share with the seals. "To nestle §," says he, "they form holes or
"burrows,

able Penguins, hunted on all sides, threw themselves one upon another, and were easily shot by thousands; the rest fell from the top of the rocks to the ground, and instantly expired . . . the more fortunate reached the sea, where they were safe. *Hist. des Navig. aux Terres Australes*, tom. i. p. 240.

* There are prodigious quantities of these amphibious birds on some islets near Staten-land, so that we felled as many as we pleased with a stick; I cannot say that they are good eating; but in want of fresh provisions, we often found them excellent. They do not lay here, or it was not the season (in January) for we saw neither eggs nor young. *Cook*.—*Spilberg* and *Wood* found the flesh of the Penguins to be very good; but this depends much upon the hunger of the sailors, and their want of better food.

† *Clusius*.

‡ The Penguin islands (in Magellan's Strait) are three in number . . . they yield only a little grass, which maintains the Penguins. *Spilberg*.

§ On New Year's island, near Statenland, and at New Georgia, a grass of the species called *Dactylis Glomerata* takes a remarkable growth: it is perennial, and endures the coldest winters; it shoots always in tufts at some distance from one another; every year the buds rise to a new head, and enlarge the tuft, till it is four or five feet high, and twice or thrice broader at the bottom than at the top; the leaves and stalks of this grass are strong, and often three or four feet long. The seals and the Penguins shelter themselves under

“ burrows, and choose, for this purpose, a down
 “ or sandy plain. The ground is every where
 “ so much bored, that in walking a person often
 “ sinks up to the knees, and if the Penguin
 “ chance to be in her hole, she revenges herself
 “ on the passenger, by fastening on his legs,
 “ which she bites very close *.”

The Manchots occur not only in all the south-
 ern tract of the great Pacific Ocean, and on all
 the islands scattered in it †, but also in those of
 the

these tufts, and as they come out of the sea quite drenched, the
 paths between these plants are rendered so dirty and slimy, that a
 person cannot walk without stepping from one tuft to another.
Forster.—The most advanced and the largest of these islands (on
 the north-east of Spiring bay, in sight of Port Desire, in Magel-
 lan's Strait) is that named *the island of Penguins*, about three
 quarters of a mile in length. This island consists only of craggy
 rocks, except near the middle, where it is gravelly, and bears a
 little green herbage: it is the retreat of a prodigious number of
 Penguins and seals. *Narborough*.

• Voyage of five vessels to the Straits of Magellan.—They
 make holes in the ground, like our rabbits, and there lay eggs;
 but they live on fish, and cannot fly, having no feathers on their
 wings, which hang at their sides like bits of leather. *Noort*.—All
 the shore, near the sea, is strewed with burrows, where these birds
 hatch their eggs: the island of Detroit is full of these holes, except
 a beautiful vale clothed with fine green herbage, which we imagine
 these birds had reserved for their pasturage. *Hist. des Navig. tom. i.*
p. 240.—In a bay on the coast of Brazil is an immense number of
 the birds which the English call *Penguins*; these birds have no
 wings, are larger than geese, and make holes or burrows in the
 ground, into which they creep; which has made the French call
 them *toads*. *Drake*.

† In general, no part of New Zealand contains so many birds as
 Dusky Bay; besides those just mentioned, there are also cormorants,
 albatrosses, gulls, and *Penguins* (Manchots). *Forster*.—We cannot
 reckon

the Atlantic, and, it would appear, at lower latitudes. There are vast flocks of them near the Cape of Good Hope, and even farther north*. We are of opinion, that the *divers*, which the ships *Eagle* and *Mary* met with in lat. 48° 50' † south, among the first floating ice, were Manchots. They must have advanced even into the Indian seas, if Pyrard is exact in placing them in the *Atollons* of the Maldives ‡, and if Sonnerat really found them in New Guinea §. But these places

reckon parrots and Penguins among the domestic animals; for though the natives of the Friendly and Society Islands tame a few individuals, these have never bred. *Drake*.

* Twenty leagues north from the Cape of Good Hope, there is a multitude of birds, and, among others, a prodigious number called *Penguins*; so that we could scarce turn ourselves among them: they are not accustomed to see men, as seldom any vessel touches at this island, unless it meets with some accident at sea, as was our case. *Spilberg*.

† In the seventh degree of longitude.

‡ Many little islands, the *Atollons* of the Maldives, have no verdure, and are mere drifted sand, of which a part is overflowed at stream-tides: they contain, at all times, plenty of sea-crabs, and such a prodigious number of *Penguins*, that one cannot stir a foot without crushing their eggs or their young. *Pyrard*.

§ This voyager speaks of them as an enlightened naturalist:—“All the species of Manchots,” says he, “are deprived of the power of flying; they walk with difficulty, and carry their body erect and perpendicular, their legs are entirely behind, and so short that the bird can only take very small steps; the wings are only appendices in the place where the true wings should be attached, and their only use is to balance the bird in its tottering pace. They come on shore to pass the night and to breed; the impossibility of their flying, and the difficulty of their running, expose them to the mercy of those who chance to land on their retreats, and they are run down; the

“defect

places excepted, we may say with Forster, that in general the tropic is the limit which the Manchots have seldom passed, and that the bulk of them affect the high and cold latitudes of the South Sea.

The true Penguins also, those of the north, seem to prefer the icy sea, though they sometimes descend as far as the Isle of Wight to breed: however, the Feroe Islands and the coasts of Norway, seem to be their native territory in the ancient continent; and Greenland, Labrador, and Newfoundland, that in the new. Like the Manchots, they are entirely destitute of the power of flying, having only small ends of wings, covered indeed with feathers, but these so short as to be fit only for fluttering.

The Penguins, like the Manchots, remain almost constantly on sea, and seldom come to land but to nestle or rest; they lie squat, it being equally painful for them to walk or to stand erect, though their legs are rather taller, and placed not quite so much behind the body as in the Manchots.

In fine, the analogy in their instinct, their mode of life, and their mutilated truncated shape,

“defect of their structure, which incapacitates them from avoiding
“their enemies, has made them be regarded as stupid creatures, in-
“attentive even to self-preservation: they are never found in places
“inhabited, and they never can; for, being incapable of resistance
“or escape, they must quickly disappear, wherever destructive man
“shall fix his abode, who permits nothing to subsist that he can ex-
“tirpate.”

is such between these two families, notwithstanding the characteristic differences which discriminate them, that in producing them nature seems evidently to have banished to the extremities of the globe these extremes of the feathered kind; in the same manner as she has banished to those retreats the great amphibious animals, the extremes of the quadrupeds, the seals and the walruses; unfinished, mutilated forms, incapable of figuring in the animated scene among the more perfect models, and exiled into the remote confines of the world.

We proceed to enumerate and describe the species of these two genera of wingless birds, the *Penguins* and *Manchots* *.

* Mr. Pennant, and after him Mr. Latham, gives the name *auk* to the northern species, and appropriates that of *Pinguin* or *Penguin* to the southern species.—T.

The PENGUIN.

FIRST SPECIES.

Alca Torda. Linn. and Gmel.

Alca. Briss.

Plautus Tonfor. Klein.

Alka. Clusius, Nieremb. and Johnst.

Alka Hoieri. Sibb. Will. and Ray.

The Falk. Martin's Voy. St. Kilda.

The Marrot. Sibb. Hist. Fife.

The Auk. Penn. and Lath. •

THOUGH this first Penguin is furnished with wings of some length, and with several little feathers, we are assured that it cannot fly, nor even rise from the water †. The head, the neck, and the whole of the upper side of the body, are black; but the under side, which is immersed in the water when it swims, is entirely white. A little streak of white runs from the bill to the eye, and a similar streak crosses the wing obliquely.

We have said that the feet of the Penguin has only three toes, and that this conformation, as

• In the north of England the *Auk*: in the west of England the *Razorbill*: in Cornwall the *Murre*: in Scotland the *Scout*: in Norway, and in the Feroe islands, the *Alke*, *Klub Klympæ*: in Gothland *Tord*, and in Angermania *Torámulé*: in Iceland *Aulka*, *Klumbr*, *Klumber-nevia*: in Greenland *Awarjak*.

† Edwards.

well

N^o 258

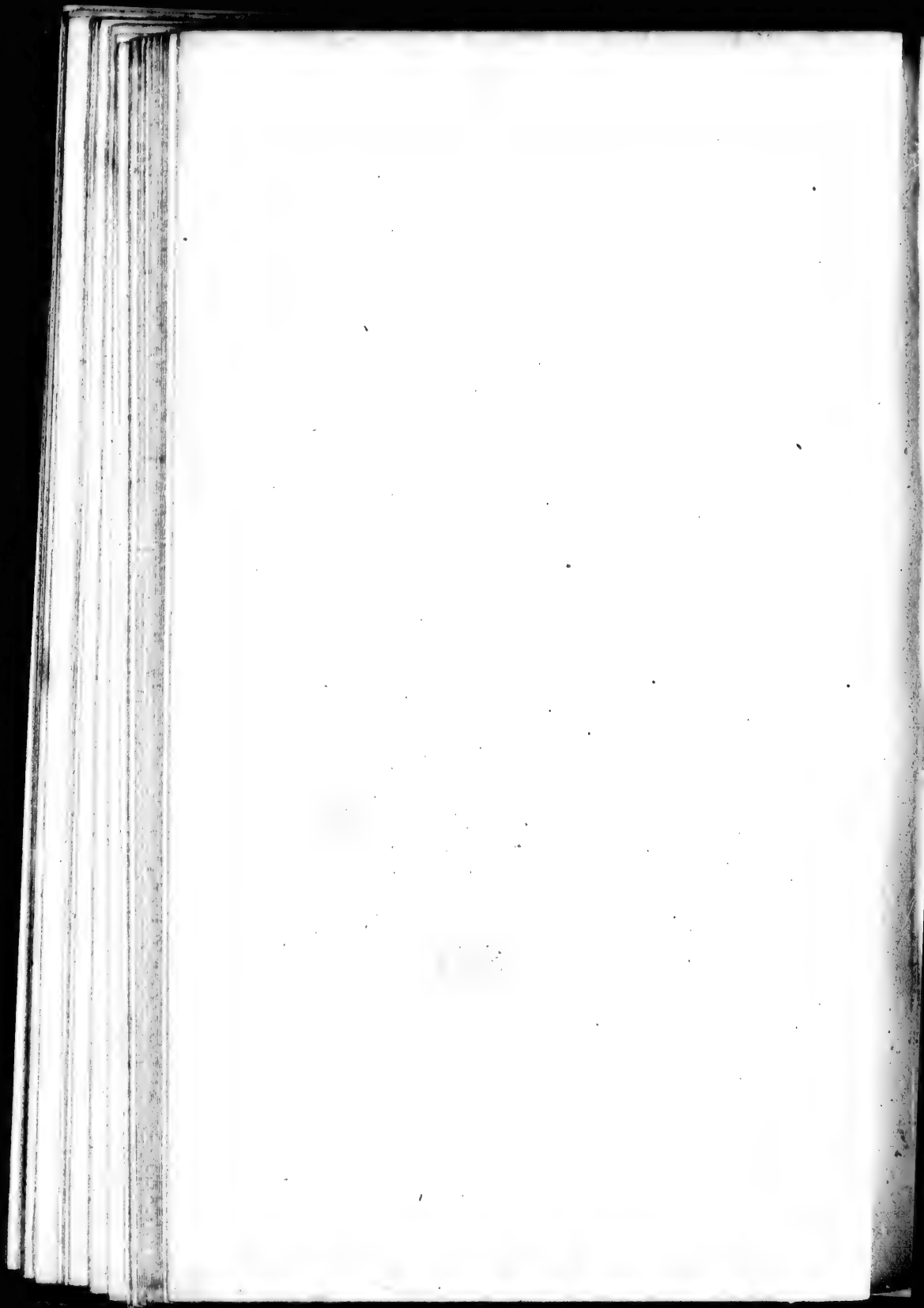


THE RAZOR BILL.

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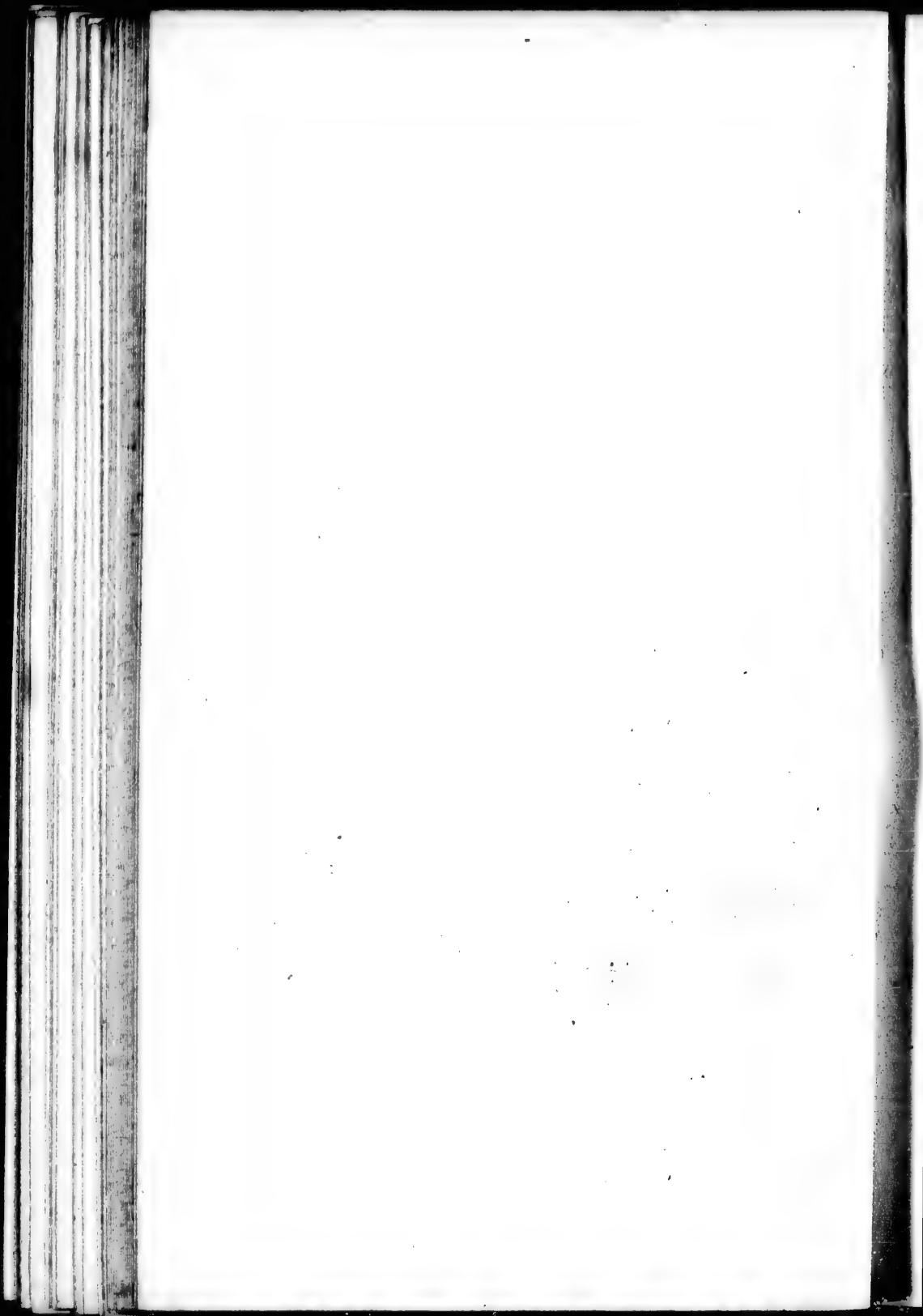
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N^o 259



THE RAZOR-BILL THE FEMALE.



well as that of the bill, distinguishes it very manifestly from the Manchot. The bill of this first Penguin is black, sharp at the edges, very flat on the sides, which are channelled with three furrows, of which the middle one is white: just at its aperture, and under the down that covers the base of the bill, the nostrils appear in long slits. The female wants the little white streak between the bill and the eye, but its throat is white.

"This Penguin," says Edwards, "occurs equally in the northern parts of America and of Europe. It comes to breed on the Feroe Islands *, along the west of England †, and on the Isle of Wight ‡, where it augments the multitude of sea-fowl that inhabit the great rocks, called *the Needles*." We are assured, that it lays only one egg §, which is very large in proportion to the size of the bird §.

It is still uncertain in what asylum the Penguins, especially the present, pass the winter ¶. As they cannot hold out on the sea in the depth of that season, and never appear then on shore, nor retire to southern climates, Edwards supposes that they pass the winter in the caverns of rocks, which open under water, but rise internally as much above the level of the flood as to admit a recess, where the Penguins remain torpid, and live upon their abundant fat.

* Hoierus.

|| Linnaeus.

† Ray.

§ Ray.

‡ Edwards.

¶ *Idem*.

We should add, from Pontoppidan, some particulars concerning this species; that it is a great catcher of herrings, that it bites hooks baited with these fish, &c. if the account given by that writer did not betray the same inconsistencies that appear in his other narrations; for instance, he says, "that when these birds issue from the "caverns where they shelter themselves and "nestle, they darken the sun by their number, "and make with their wings a noise like that of "a tempest." This assertion applies not to the Penguins, which at most can only flutter.

We recognize the Penguin in the *esarokitsok*, or *little wing* of the Greenlanders; "a kind of "diver," says the narrator, "which has wings "at most only half a foot long, and so scantily "feathered that it cannot fly; its legs too are "placed so far back, that one cannot conceive "how it is able to stand erect and walk." In fact, the erect attitude is painful to the Penguin; its pace is heavy and sluggish, and its ordinary posture is that of swimming or floating on the water, or lying stretched on the rocks or on the ice.

[A] Specific character of the Auk, *Alca Torda*: "Its bill is "marked with four furrows, a white line on either side between the "bill and the eyes." The length is eighteen inches; the alar extent twenty-seven; the weight twenty-three ounces. The Auk lays her egg on the naked rock, to which it is fastened by the concretion of viscous moisture that bedews the surface upon its exclusion: if this cement chance to be broken, it rolls down the precipice.

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N^o 260



THE GREAT AUK.

The GREAT PENGUIN.

SECOND SPECIES.

Alca Impennis. Linn. and Gmel.

Alca Major. Briss.

Mergus Americanus. Clusius.

Gairfugel. Nieremb. Johnst. and Clusius.

The Penguin. Wormius, Will. Ray, Martin, &c.

The Northern Penguin. Edw.

The Gare. Sibb. Prodrum. Scotiæ.

The Great Auk. Penn. and Lath. *

WILLUGHBY says, that the size of this Penguin approaches that of the goose. He must mean the height of its head, and not the bulk of its body, which is much more slender than in the goose. The head, the neck, and the whole mantle, are of a fine black, with little short feathers, soft and glossy like satin: a great oval white spot appears between the bill and the eye, and the margin of this spot rises like a rim on each side of the top of the head, which is very flat: the bill, which, according to Edwards' comparison, resembles the end of a broad cutlass, has its sides flat and hollowed with notches: the greatest feathers of the wings exceed not three inches in length. We may easily judge, that

* In Iceland it is called *Gairfugl*: in Norway *Fiert*, *Anglemange*, *Penguin*, *Brillefugl*: In Swedish *Pengwin*.

plumage

plumage so scanty in proportion to the mass of its body cannot raise it into the air *. It can scarce even walk, but continues always on the water, except in the time of breeding.

This species seems not to be numerous; at least these great Penguins appear seldom on the coasts of Norway †. They do not resort every year to the Feroe Islands ‡; and they seldom descend more southerly in our European seas §. That described by Edwards was caught by the fishers on the banks of Newfoundland. It is uncertain to what region they retire to nestle ||.

The *akpa* of the Greenlanders, a bird *as large as a duck, with the back black and the belly white, and which can neither run nor fly ¶*, appears to be the Great Penguin. With respect to the pretended Penguins, described in the voyage of Martiniere, they are evidently pelicans **..

* Hoierus.

† Linnæus.

‡ Hoierus.

§ Edwards.

|| Hoierus.

¶ The *akpa* of Greenland is as large as a duck; its back is black, its belly white: this species lives in flocks very far at sea, and approaches not the land, except in the coldest weather; but it then repairs in such numbers that the water round the islands seems covered with a thick dark fog: then the Greenlanders drive them upon the coast, and catch them with the hand, for these birds can neither run nor fly. They afford subsistence to the inhabitants during the months of February and March, at least at the mouth of Ball River, for they do not resort to all the shores indiscriminately. They have the tenderest and most nutritive flesh of all the sea-hens; and their down serves to line winter garments. *Kliff. Gen. des Voy. tom. xix. p. 46.*

** These birds, which our commander said were called *Penguins*, are not taller than swans, but twice as large, and equally white; their

their neck as long as that of a goose, their head much larger; their eye red and sparkling, their bill tapered to a point, and yellowish-brown; their feet also are formed like those of a goose, and they have a sort of pouch, which begins under the bill, continuing along the neck to the breast, enlarging below, in which they store their provisions when they are satisfied, to feed as occasion requires. . . To prepare them for eating we were obliged to skin them, as their skin was very hard, and the feathers could not be plucked but with great difficulty. The flesh is very good, and of the same taste with that of wild ducks, and very fat.

[A] Specific character of the Great Auk, *Alca Impennis*: "Its bill is compressed and channelled; an oval spot on either side before the eyes." Its length on both surfaces, to the end of the toes, is three feet: the tip of the longest wing-quills is only four inches and a quarter from the joint. Its egg is six inches long, white, and marked irregularly with ferruginous. It frequently visits St. Kilda, and breeds in June and July.

The LITTLE PENGUIN; or the SEA-DIVER of BELON.

Alca Pica. Linn. and Gmel.

Alca Minor. Brisson.

Mergus Bellonii. Aldrov. Johnston. Will. and Ray.

Alca Unifasciata. Brunn. and Muller.

The Black-billed Auk. Penn. and Lath.

THIS bird is noticed by Belon under the name of *Sea-Diver*, and by Brisson under that of *Little Penguin*. Yet we much doubt the propriety of the latter denomination; for, upon examining the figure given by that ornithologist, we perceive a strong likeness between it and the *little guillemot* of our *Planches Enluminees*; and at any rate

rate its bill is different from that of the Penguin. The place, too, where Belon observed it, the Cretan Sea, throws in our way an additional doubt; since the Penguins never advance to the Mediterranean, and are all represented as peculiar to the northern seas. In short, if we durst in this instance suspect the accuracy of an observer so well-informed, and so uniformly exact as Belon, we should infer, notwithstanding what he says concerning the structure of the feet of his Cretan *uttamaria*, that it belongs rather to some species of diver or grebe, than to the family of Penguins. However, we cannot but transcribe the relation by our old and learned naturalist, who is the original author from whom Dapper and Aldrovandus have drawn their account of this bird.

“ There is,” says he, “ in Crete, a particular
 “ sort of Sea-Diver, swimming beneath the sur-
 “ face, different from the cormorant and the
 “ other divers called *mergi*, and which I con-
 “ ceive to be what Aristotle has termed *æthia*.
 “ The inhabitants on the Cretan shore call it
 “ *uuttamaria* and *calicatczu*. It is of the size of
 “ a garganey, white below the belly, and black
 “ over the whole upper side of the body. It has
 “ no spur behind, and it is likewise the only one
 “ of all the flat-footed birds which has that pro-
 “ perty: its bill is very sharp at the edges, black
 “ above, white below; hollow, and as it were
 “ flat, and covered with down a good way
 “ forward

"forward . . . which is occasioned by a tuft of
 "feathers that grows upon something over the
 "bill joining the head, raised like a half walnut
 " . . . The top of the head is broad, but the tail is
 "so short, that it seems like a point; it is en-
 "tirely covered with fine down, which adheres
 "so close to the skin, that it might justly be
 "looked upon as hair, and seems as delicate as
 "velvet; insomuch that when flayed the skin is
 "found to be very thick, and, if curried, it re-
 "sembles the skin of some land animal."

[A] Specific character of the Black-billed Auk, *Alca Pica*: "Its
 "bill is smooth and compressed; all the under side of the body, and
 "the tips of the posterior wing-quills, are white; its legs red." Its
 length is eighteen inches and a half; its weight eighteen ounces.
 This species is very common in Greenland, where they breed on the
 cliffs. They feed on marine insects, and grow very fat. In win-
 ter they pass the day in the bays, but in the evening retire to the sea.
 The Greenlanders eat their flesh half putrid, suck their raw fat, and
 clothe themselves with their skins. The bird, dressed with its en-
 trails, is by these people esteemed a great delicacy.

The GREAT MANCHOT.

FIRST SPECIES.

Aptenodytes Patagonica. Gmel.

Anser Magellanica. Clusius.

Plautus Pinguis. Klein.

The Patagonian Penguin. Penn. and Lath.

CLUSIUS seems to attribute the discovery of the Manchots to the Dutch, who performed in 1598 a voyage to the South Sea. "These navigators," says he, "having touched at certain islands near Port Desire, found them full of a kind of unknown birds, which had come there to nestle: they called these birds *pinguins*, on account of their fatness (*pinguedo*).*

* This derivation is adopted by Dr. Grew; and Messrs. Pennant and Latham have gone so far, to favour that conjecture, as to alter the usual spelling into pinguin. But is it in the smallest degree probable, that illiterate sailors would think of bestowing a Latin name on a new object? And even admitting this, they would have called the bird *pingued*, not *pinguin*, surely, far less *penguin*, which is however the original orthography. A word of a similar sound signifies *white head* in Welch; and some authors have alledged this accidental coincidence as a further proof that a colony was carried from Wales to America. To this opinion Butler alludes in his *Hudibras*:

"British Indians named from penguins."

—But it appears that, in the northern languages, the great auk has the name of *penguin*, which the Dutch must have learnt in their frequent voyages to the Whale-fishery; when they met with a similar bird, therefore, on the coast of Patagonia, they would naturally bestow upon it the same appellation.—T.

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THE PATAGONIAN PENGUIN.

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“ and named these islands *the islands of pin-guins*.

“ These singular birds,” adds Clusius, “ have no wings, but in their stead two membranes that hang on each side like little arms ; their neck is thick and short ; their skin is hard and thick like hog’s leather. They were found three or four in a hole : the young ones weighed ten or twelve pounds, but the adults reached to sixteen pounds, and, in general, they were of the bulk of the goose.”

From these proportions, it is easy to recognize the Manchot represented in the *Planches Enluminees* under the name of *the Manchot of the Malouine islands*, and which occurs not only in the whole of the Straits of Magellan and the adjacent islands, but also at New Holland, from whence it has stretched to New Guinea *. It is indeed the largest of the Manchots ; and the individual which we directed to be engraved, was twenty-three inches high : they attain to a much greater size ; for Forster found several that measured thirty-nine inches, and weighed thirty pounds †.

“ Divers flocks of these penguins, the largest I ever saw, wandered on the coast (of New Georgia) : their belly was of an enormous bulk, and covered with a large quantity of fat ; they have on each side of the head a spot of bright yellow or orange-colour, edged with black ; all

* Sonnerat.

† Forster.

“ the back is of a blackish gray ; the belly, the
“ under side of the pinions, and the fore part of
“ the body, are white. They were so stupid
“ that they made no effort to escape, and we
“ knocked them down with sticks . . . These are,
“ I think, what the English have termed at
“ the Falkland Islands, *yellow penguins* or *king*
“ *penguins*.”

This description of Forster agrees exactly with our Great Manchot, observing only, that a bluish tint is spread on its cinereous mantle, and that the yellow of its throat is rather lemon or straw-colour than orange. The French, indeed, found it in the Falkland or Malouine Islands; and Bougainville speaks of it in the following terms. “ It loves solitude and sequestered retreats: its bill is longer and more slender than in the other kinds of Manchots, and
“ its back is of a lighter blue; its belly is of a
“ dazzling whiteness; a jonquil tippet, which
“ rising from the head intersects these white and
“ blue (gray-blue) spaces, and terminates on the
“ stomach, gives it a great air of magnificence:
“ when it screams it stretches out its neck . . .
“ We hoped to be able to carry it to Europe:
“ at first it grew so tame as to distinguish and
“ follow the person who had the charge of
“ feeding it; and it ate indifferently bread, flesh,
“ or fish. But this diet was not sufficient; it
“ absorbed its fat, became excessively emaciated,
“ and died.”

[A] Specific

[A] Specific character of the Patagonian Penguin, *Aptenodytes Patagonica*: "Its bill and legs are black; a gold spot on the ears." This is rather a scarce species. They lay in the end of September or the beginning of October. They are very full of blood, so that in killing them their head must be severed, to allow it to flow.

The MIDDLE MANCHOT.

SECOND SPECIES.

<i>Aptenodytes Demersa.</i>	Gmel.
<i>Diomedea Demersa.</i>	Linn.
<i>Spheniscus.</i>	} Briff.
<i>Spheniscus Nævius.</i>	
<i>The Black-footed Penguin.</i>	Edw.
<i>The Lesser Penguin.</i>	Philos. Transf. and Sparr.
<i>The Cape Penguin.</i>	Lath.

OF all the characters which might be employed to denominate this second species of Manchot, we have pitched on the size as the most constant and discriminating. It is what Edwards calls *the black-footed penguin*; but the feet of the great Manchot are black likewise. It appears in the *Planches Enluminees* under the name of *the Manchot of the Cape of Good Hope*, or of *the Hottentots*. But the species occurs in other places beside the Cape, and is met with also on the South Seas. We had thought of calling it *the collared Manchot*; and in fact the black mantle of the back encircles the fore part

of the neck by a collar, and sends off upon the sides two long bands after the manner of a scapulary: but this livery appears not to be constant except in the male, and the female has scarce some obscure trace of a collar. In both, the bill is coloured near the tip by a little yellow band, which perhaps depends on the age. So that we can denominate it only from its size, which is about the average in this genus, seldom ever exceeding a foot and an half.

All the upper surface of the body is flaty, that is of a blackish ash-colour; and the fore part, with the sides of the body, are of a fine white, except the collar and the scapulary; the end of the lower mandible seems a little truncated, and the fourth toe, though free and not attached to the membrane, is turned more before than behind; the pinion is all flat, and looks as if covered with a shagreen, the pencils of feathers which clothe it are so little, stiff, and pressed, the largest of these plumules is not half an inch long, and according to Edwards' remark, above an hundred may be counted in the first row of the wing.

These Manchots are very numerous at the Cape of Good Hope *, and in the adjacent latitudes.

* There were at the Cape of Good Hope birds called *penguins* in great numbers, which are as large as a pretty small *goose*; their body is covered with small feathers; their wings are like those of a duck after the feathers are plucked; they cannot fly, but they swim very

titudes. The Viscount de Querhoënt observed them off the Cape, and communicated to me the

very well, and dive still better; they are frightened at the sight of men, and endeavour to escape, but they may be easily caught by running: each female lays two eggs as large as those of a goose; they make their nest among the brambles, scraping in the sand and forming a hole, in which they lurk so close, that, in passing along, one can hardly perceive them; they bite very strong when they are near a person who is off his guard;—they are spotted with black and white. *Recueil des Voyages qui ont servi à l'établissement de la Compagnie des Indes Orientales, tom. iii. p. 581; Amsterdam, 1702.*—

The birds which are the most frequent in this bay (of Saldana) are the *penguins*; they do not fly, and their wings assist them only in swimming; they swim as fast in the sea as other birds fly in the air, *Flaccourt*.—We called a little island, which is four leagues beyond the Cape of Good Hope, *the island of birds*, on account of the great number and different species that were on it; there are *penguins* differing only from those which occur in the Straits of Magellan, in that their bill is straight like that of a *heron*, and not bent back as in the others; they are about the size of a goose, weighing sixteen pounds; their back is covered with black feathers; their belly with white; their neck is short and thick, with a white collar; their skin is very thick, and they have small pinions like leather, which hang as small arms covered with small stiff feathers, white, and intermixed with black, which serve them to swim and not to fly; they seldom come on shore, unless it be to lay their eggs and hatch; their tail is short, their feet black and flat; they conceal themselves in holes which they make on the brink of the sea, never more than two at once; they lay on the ground, and hatch only two eggs, which are about the bulk of those of turkies. *Cauche*.—At Aguada de San Bras, twenty-five leagues from the Cape, is a small island or a great rock, where is a multitude of birds called *penguins*, about the size of a gosling; they have no wings, or at least these are so small and so short, as to resemble more the shaggy skin of a beast than wings; but instead of wings, they have a feathered fin with which they swim; they suffer themselves to be taken without making an effort to escape, a proof that they see few men or none at all; when one is killed, the skin is found to be so hard that a sabre can scarce cut any part but the head. There were also on this

the following note: "The penguins (Manchots)
 " of the Cape are black and white, and of the
 " bulk of a duck; their eggs are white, two at
 " each hatch, and they defend their brood cou-
 " rageously: they nestle on the islets along the
 " coast; and an observer of credit assured me,
 " that in one of these was a raised knoll, which
 " these birds preferred, though more than half
 " a league from the sea. As they walk slowly,
 " he thinks it impossible that they should every
 " day resort to the sea for food. He took some
 " therefore to try how long they could live
 " without sustenance; he kept them a fortnight
 " without any thing to eat or drink, and at the
 " end of that time they were still alive, and so
 " stout, that they bit keenly."

M. de Pages, in the manuscript relation of
 his voyage towards the South Pole, agrees with
 respect to these facts. "The size of the Cape
 " Manchots," says he, "is equal to that of our
 " largest ducks: they have two oblong cravats
 " of a black colour, the one on the stomach,
 " the other on the neck. We found commonly
 " in the nest two eggs or two young ones, laid
 " head to tail, the one always a fourth at least
 " bigger than the other. The adults were as
 " easy to take as the young: they could walk

rock many sea-dogs, which made resistance to the sailors: we kill-
 ed some of them, but neither the dogs nor the birds were good to
 eat. *Recueil des Voyages qui ont servi à l'établissement de la Com-
 pagnie, tom. i. pp. 213 & 214.*

"only

"only slowly, and sought to lie among the rocks."

This voyager adds a curious fact, that the Manchots use their pinions from time to time as fore-feet, and then they go faster, walking as it were on four. But in all probability this is a sort of tumbling, and not a real walk.

This middle species seems to be the second of those described by Bougainville at the Malouine islands; for he says, that it is the same with that of Admiral Anson*, which is also that of Narborough: but from the weight and colours which Narborough ascribes to his penguin, we may regard it as the same with the species in question†. It seems also to be that which Forster describes as the most common in the Straits of Magellan, and which he says is of the bulk of a little goose, and stiled by the English at the Falkland Islands the *jumping Jack*.

* On the east coast of Patagonia, we found immense troops of seals, and a great variety of sea-fowl, of which the most singular were the *penguins*; they are of the size and nearly of the figure of a goose; but instead of wings they have two stumps, which are of no use to them but in swimming; when they stand or walk, they hold their body erect, and not in a situation nearly horizontal like the other birds. This peculiarity joined to their having a white belly, suggested to Sir John Narborough the whimsical idea of comparing them to children standing with white bibs. *Anson*.

† It weighs about eight pounds; its head and back are black, its neck and belly white, and the rest of its body blackish; its legs are as short as those of a goose; when there are many in flocks, and seen at a distance, one would suppose them to be children dressed in white; it bites very hard, but is not at all shy, for they came in whole flocks about our boats, where we easily killed them one after another, striking them on the head. *Narborough*.

Forster

Forster observed these Manchots at Statenland, where he had a little adventure with them: "They were," says he, "in a profound sleep, "for Dr. Sparrmann lighted on one, which he "rolled several yards without waking it: to "rouse them from their slumber, we were obliged to jog them repeatedly. At length they "rose in flocks, and when they saw that we "surrounded them, they took courage, darted "with violence upon us, and bit our legs and "our clothes. After leaving a great number "apparently dead on the field of battle, we "chased the rest, but the first started suddenly, "and paced gravely behind us."

[A] Specific character of the Cape Penguin, *Aptenodytes Demersa*: "Its bill and legs are black; its eye-brows, and the bar on "its breast, are white."

The HOPPING MANCHOT.

THIRD SPECIES.

Aptenodytes Chrysocome. Gmel.
The Hopping Penguin. Bougainville, and Phil. Trans.
The Crested Penguin. Penn. and Lath.

THIS Manchot is scarcely a foot and half high from the bill to the feet, and nearly as much when, its head and body extended, it fits
on

on its rump, which is necessarily its posture on land: its bill is red, and so is its iris, over the eye there passes a white line tinged with yellow, which dilates and expands behind into two little tufts of bristled filaments, that rise from both sides of the top of the head; this part is black, or of a very deep blackish ash-colour, as well as the throat, the face, the upper side of the neck, of the back, and of the pinions; all the fore side of the body is of a snowy white.

In the *Planches Enluminees* this bird is indicated under the name of *Siberian Manchot*: we no longer retain that denomination, since nature seems to have marked the great division of the northern penguins and the southern Manchots; and as M. Bougainville has discovered it on the *Terra Magellanica*, we suspect that it is not found in Siberia, but only in the islands of the South Sea, where the same navigator has described them under the name of *hopping penguin*. "The third species of these half birds," says he, "lives in families like the second, on the high rocks where they lay. The characters which distinguish these from the two others are their smallness, their fulvous colour, a tuft of gold-coloured feathers shorter than those of the *egrets*, and which they erect when angry; and lastly, other little feathers of the same colour, which serve as eye-brows. They are called *hopping penguins*: in fact, they move by leaps
"and

"and springs. This species has more liveliness
"in its mien than the two others."

It is, in all probability, the same crested and red-billed Hopping Manchot that Captain Cook alludes to in the following passage: "Hitherto (in lat. $53^{\circ} 57'$ south) we had continually round the ship a great number of *penguins*, which seemed to be different from those we saw near the ice; they were smaller, with reddish bills and brown heads. The meeting with such a multitude of these birds gave me some hope of finding land." And in another place . . . "On the 2d of December, lat. $48^{\circ} 23'$ south, long. $179^{\circ} 16'$, we observed several red-billed penguins which continued with us next day."

[A] Specific character of the Crested Penguin, *Aptenodytes Chrysocome*: "Its bill is rufous-brown; its legs yellowish; the crest on its front deep black and erect, a deflected tuft from the ear of a sulphur-colour." Its length is twenty-three inches. It is not quite so unwieldy as the other penguins.

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THE PENGUIN, WITH A MUTILATED BILL.

The M A N C H O T

WITH A TRUNCATED BILL.

FOURTH SPECIES.

Aptenodytes Catarractes. Gmel.

Phaeton Demersus. Linn.

Catarractes. Briss.

The Red-footed Penguin. Edw. and Lath.

THE bill of the Manchots usually terminates in a point. In this species the extremity of the lower mandible is truncated. This character seemed sufficient to Brisson for constituting a distinct genus under the denomination of *gorfou*, of which he was completely master according to the hypothetical and systematical order of his divisions: but it was not a matter equally arbitrary to apply to the same Manchot the name of *Catarractes* or *Catarracta*, by which Aristotle denoted an aquatic bird of prey*, which was certainly not a Manchot, with which Aristotle must have been totally unacquainted.

However, Edwards, to whom we owe our knowledge of this species, applies to it this passage of Sir Thomas Roe, in his voyage to India: " On the isle of Penguins (at the Cape of

* *Hist. Anim.* lib. ix. 12.

“ Good Hope) is a sort of fowl of that name
 “ that goes upright ; his wings without feathers,
 “ hanging down like sleeves faced with white ;
 “ they do not fly, but walk in companies, keep-
 “ ing regularly their own quarters *.”

Yet Edwards does not inform us if this Manchot be an inhabitant of the Cape, rather than of the Straits of Magellan. It was, he says, *as large as a goose* ; its bill was open as far as the eyes, and red, as well as the feet ; the face was of a dull brown ; all the fore side of the body was white ; the hind part of the head, the top of the neck, and the back, were of a dull purple, and covered with very little feathers stiff and close : “ These feathers,” adds Edwards, “ resemble more the scales of a serpent than feathers ; the wings,” he continues, “ are small and flat like brown plates, and covered with feathers so little and so stiff, that at some distance they might be taken for shagreen : there is no appearance of tail, but some short and black bristles at the rump.”

* Churchill's Coll. of Voyages, vol. i. p. 767.

[A] Specific character of the Red-footed Penguin, *Aptenodytes Catarractes* : “ Its bill and legs are red ; its head brown.”—Our reader will find a full and distinct description of the penguins, with an excellent figure, by Mr. Pennant, in the Philosophical Transactions for 1768.

* * * *

SUCH are the four species of Manchots which we could exhibit as known and well described. If this genus is more numerous, as Forster seems to insinuate, each new species will naturally assume its place. Meanwhile we shall remark some that are mentioned, though imperfectly and confusedly, in the following notes :

I. " Of the Maldive isles," says one of our old voyagers, " a prodigious number are uninhabited . . . and others covered with large crabs, and a croud of birds called *pingui*, which lay and breed in these retreats. Their multitude is so astonishing, that one cannot any where set a foot without trampling on their eggs and young, or the birds themselves. The islanders will not eat them, though they are very palatable, and are of the size of pigeons, with a white and black plumage *."

We are unacquainted with this species of Manchot as small as a pigeon, and yet a similar small species of wingless bird, under the name of *calcamar*, occurs on the coast of Brazil. " The *calcamar* is of the bulk of a pigeon ; its wings are of no assistance to it in flying, but it swims very nimbly : it never leaves the water ; the

* Voyage de François Pyrard de Laval ; Paris, 1619, tom. i.

Aptenodytes
own."—Our
penguins, with
physical Trans-

" Brazilians assert even that it there deposits its
 " eggs, but do not explain how it could hatch
 " them on the water *."

II. The *aponars* or *aponats* of Thevet †,
 " which," says he, " have little wings, by which
 " reason they cannot fly; their belly is white,
 " their back black, their bill similar to that of a
 " cormorant or a raven, and when they cry, it
 " is like the grunting of hogs." These are in
 all probability Manchots. Thevet found them
 on the island of Ascension: but under the name
 of *aponar*, he makes the same confusion with
 what has happened under that of penguin; for
 he speaks of *aponars which ships meet with in*
sailing from France to Canada. These last are
 penguins.

III. The bird of the South Seas, which Cap-
 tain Wallis's people, and afterwards Captain
 Cook's, called the *race-horse*, because it ran
 on the water very swiftly, striking the surface
 with its feet and wings, which are too small for
 its flying. This bird seems from these charac-
 ters to be a Manchot; yet Forster denominates
 it the *logger-head duck* in the Philosophical
 Transactions, Vol. lxvi. Part 1. He thus speaks:
 " It resembled a duck, except in the extreme
 " shortness of its wings, and in its bulk, which

* Hist. Gen. des Voy. tom. xiv. p. 303.

† Singularités de la France Antarctique, par André Thevet;
 Paris, 1558, p. 40.

“ is that of a goose ; its plumage was gray, with
 “ a few white feathers ; its bill and legs yellow,
 “ and two large scaly bumps of the same colour
 “ at the joint of each wing. Our sailors called
 “ it race-horse, on account of its swiftness ; but
 “ in the Falkland Islands the English have
 “ given it the name of *logger-head duck*.”

IV. Lastly, according to other voyagers * there is found on the islands of the Chilian coast, beyond Chiloë, and towards the Straits of Magellan, a “ species of goose which does not fly, “ but runs on the water as nimbly as others fly. “ This bird has a very fine down, which the “ American women spin, and make it into co- “ verlets, which they sell to the Spaniards.” If these particulars are to be depended on, they indicate a species between the large feathered birds and the Manchots with scaly feathers, which bear little resemblance to down, and seem not capable of being spun.

* Anson and Wager.

NOTES AND HINTS
OF CERTAIN SPECIES OF BIRDS THAT
ARE UNCERTAIN OR UNKNOWN.

NOTWITHSTANDING the pains that we have taken, through the whole of this Work, to discuss, elucidate, and refer to their true objects the imperfect or obscure indications of voyagers or naturalists, on different species, real or nominal, of birds; notwithstanding the extent and even the success of our researches, we must confess, that there still remains a certain number of species which we cannot recognize with certainty, because they are mentioned under unknown names, or exhibited with obscure or vague features, which quadrate not exactly with any real object. These names and these features, however confused, we here collect, not only to omit nothing material, but to prevent these dubious hints from being admitted as certain; and, above all, to set observers in the way of verifying or elucidating them.

In this summary survey we shall follow the order of the work, beginning with the Land Birds, passing to the Waders, and concluding with the Water Fowl.

I. The *great bird* at Port Desire, on Magellan's Land, which is undoubtedly a bird of prey,
and

and seems, from the statement of Commodore Byron, to be a *vultur*. "The head," says he, "resembled that of an eagle, except that it had a comb upon it; round the neck there was a white ruff, exactly resembling a lady's tippet; the feathers on the back were as black as jet, and as bright as the finest polish could render that mineral; the legs were remarkably strong and large; the talons were like those of an eagle, except that they were not so sharp; and the wings, when they were extended, measured, from point to point, no less than twelve feet."

II. The bird of New Caledonia, mentioned in Captain Cook's second voyage, as a *species of raven*; though he says at the same time, that it is only half as large as the raven, and its feathers shaded with blue. This new-discovered island has presented but few birds, and among these beautiful turtles, and several unknown small birds.

III. The *avis venatica* of Belon, the only one perhaps which that judicious naturalist has not discriminated by his numerous observations. "We saw also (near Gaza) a bird which, in our opinion, excels all the rest by the charms of its song; and we think it was denominated by the ancients *avis venatica*. It is somewhat larger than a stare; its plumage is white below the belly, cinereous on the back, as in the *molliceps* or grosbeak: the tail is black, and extends

" extends beyond the wings, as in the magpie ;
 " it flies like the green woodpecker."

From the size, the colours, and the name *avis venatica* (*hunting bird*) we might take this bird to be a species of shrike; but *a pleasant warble* is no attribute of this mischievous and cruel species.

IV. The *sea-sparrow*, " which the inhabitants
 " of Newfoundland call the *ice-bird*, because it
 " lives constantly among the ice; it is not larger
 " than a thrush; it resembles the sparrow by its
 " bill, and its plumage is black and white."

Hist. Gen. des Voy. tom. xix. p. 46.

Notwithstanding the name of *sea-sparrow*, the form of its bill indicates it to be a land bird, and it seems to be a-kin to the snow bunting.

V. The little *yellow-bird*, so called at the Cape of Good Hope, and which Captain Cook found in New Georgia. It is perhaps known to ornithologists, but not under that name. With respect to the *little birds with handsome plumage*, which this same navigator found at Tanna, one of the New Hebrides, we readily agree with him in opinion, that in land so remote and unconnected they are absolutely new species.

VI. The bird which the naturalists that accompanied Captain Cook in his first voyage denominated *motacilla velificans*, who saw it alight on the ship's rigging at sea, ten leagues
 § from

from Cape Finisterre. We should certainly have found it to be a shepherdes, had not Linnaeus, whose nomenclature they follow, applied the term *motacilla*, as generic, to all birds that wag their tail.

VII. The *occolin* of Fernandez, which should have ranged among the woodpeckers; for he expressly says, that *it is a woodpecker of the size of a stare, its plumage agreeably variegated with black and yellow.* Fernandez, *Hist. Avi. Nov. Hisp.* ccii. 54.

VIII. The birds seen by Dampier at Ceram, and which, from the form and bulk of their bill, seem to be *calaos*. He describes them as follows: " Their body was black, and their tail white; " they were as large as a crow; their neck was " pretty long, and saffron-coloured; their bill " was like a ram's horn; their legs were short " and strong; their feet resembled those of a " pigeon, and their wings were of an ordinary " size, though they made great noise in flying: " they feed on wild berries, and perch upon the " largest trees. Dampier found their flesh so " good, that he seemed to regret his not having " seen these birds except at Ceram and New " Guinea." *Hist. Gen. des Voy. tom. ii. p. 244.*

IX. The *boitzitzillin* of *Tepusculhula* of Fernandez, and the *nexboitzillin* of the same author, which must be colibris; living, he says,

on the honey of flowers, which they suck with their little curved bill, almost as long as their body; and with its brilliant feathers skilful hands form precious little pictures. Fernandez, clxxiv. p. 47. & lxxxii. 31.

With respect to the *boitzitzil-papalotl* of this Spanish naturalist, though he compares it to the *boitzitzillin*, he says expressly that it is a sort of butterfly.

X. The *quauchichil*, or *little red-beaded bird*, also of Fernandez, cliv. p. 21. It is only something larger, he says, than the *boitzitzillin*, and yet appears not to be a colibri or fly-bird, *for it occurs likewise in cold countries, and lives and sings in the cage.*

XI. The half-aquatic bird, described by Forster, and which he says is of *a new genus*: "This bird, which we met with in our excursion, was of the size of a pigeon, and perfectly white; it belongs to the class of aquatic birds that wade; its feet are semi-palmated, and its eyes, and the base of its bill, are encircled with little glands or warts: it exhaled so insupportable a smell, that we could not eat its flesh, though at that time we were not easily disgusted with the most unpalatable food." (It was at Statenland). *Forster's Voyage.*

XII. The *corbijeau* of Page Dupratz (*History of Louisiana*, tom. ii. p. 128) which is nothing

thing but the *curlew*; and we here insert the name to complete the whole system of the denominations relative to this bird, and to ornithology in general.

XIII. The *chocchopitli* of Fernandez, a bird, says this naturalist, of the kind of what the Spaniards call *chorlito* (which is the curlew). It seems to be the white and brown great curlew of Cayenne. This bird, Fernandez adds, is migratory on the lake of Mexico, and its flesh has a disagreeable fishy taste.

XIV. The *ayaca*, which, both from the similarity of its name to *ayaia*, applied to the spoon-bill in Brazil, and from the resemblance of its characters, except the alterations which objects always undergo in passing through the hands of the compilers of voyages, appears to be a spoon-bill. "This Brazilian bird (*ayaca*) is remarkably diligent in catching little fish; it never darts without effect upon the water: it is of the bulk of a magpie; its plumage is white marked with red spots, and the bill is shaped like a spoon." *Hist. Gen. des Voyages*, tom. iv, p. 303.

The *aboukerdan* of Montconys (*I. partie*, page 93.) is our spoonbill.

XV. The *acacaboaēthi*, or the bird of the Mexican lake, with a raucous voice, mentioned by Fernandez; which, he says, is a kind of *alcyon* or kingfisher.

But, according to the remark of Adanson, it is rather a species of heron or of bittern ; since *it has a very long neck, which it often folds, bringing it between its shoulders*. It is somewhat smaller than the wild duck ; its bill is three inches long, pointed, and sharp ; the ground of its plumage is white spotted with brown, browner above, and whiter below the body ; the wings are of a bright and reddish fulvous, with the point black. According to Fernandez, we may tame this bird, feeding it with fish, and even flesh ; and, what is not very consistent with its raucous voice, *its song, he says, is not disagreeable*. (Fernandez, vol. ii. p. 16.) It is the same with the *avis aquatica raucum sonans* of Nieremberg, lib. x. 236.

XVI. The *atototl*, a little bird, likewise of the Mexican lake, of the form and size of a sparrow, with the plumage white on the under side of the body, varied above with white, fulvous, and black ; which nestles in the rushes, and which from morning to evening emits a feeble cry, like the shrill squeak of a rat : its flesh is eaten. Fernandez, cap. viii. p. 15.

It is hard to say whether this *atototl* is really a shore-bird, or only an inhabitant of marshes, like the reed thrush or the sedge warbler. At any rate, it is very different from another *atototl*, given by Faber, at the end of Hernandez' work, (p. 672.) and which is the *alcatraz*, or Mexican pelican,

XVII,

XVII. The *mentavaza* of Madagascar, "a
 "bird with a hooked bill, as large as a par-
 "tridge, which haunts the sea-shore." The
 voyager Flaccourt says nothing more of it.
Voy. à Madagascar, Paris, 1661, p. 165.

XVIII. The *chungar* of the Turks, and the
kratzbot of the Russians, of which we can only
 transcribe the relation given by the historian of
 the voyages, without adopting his conjectures.
 "The plains of Tartary," says he, "produce
 "numerous birds of rare beauty: that described
 "in Abulghazi-Khan, is seemingly a species of
 "heron, which frequents the part of the Mo-
 "gul's dominions which borders on China; it is
 "entirely white, except the bill, the wings, and
 "the tail, which are of a beautiful red; its flesh
 "is delicate, and tastes like that of the hazel
 "grouse." But as the author says that it is
 very rare, we may suppose it to be the bittern,
 which is in fact very rare in Russia, Siberia,
 and Great Tartary, but which occurs some-
 times in the territories of the Mogul, near
 China, and which is almost always white.
 Abulghazi-Khan says, that its eyes, its legs, and
 its bill, are red; and he adds, that the head
 is of the same colour. He tells us, that this bird
 is named *chungar* in the Turkish language, and
kratzbot in the Russian; which has led the Eng-
 lish translator to conjecture that it is the same
 with that denominated *chon-kui*, in the history of
 Timur-Bek, and which was presented to Gengis-
 Khan

Khan by the ambassador of Kadjak *. *Hist. Gen. des Voy. tom. vi. p. 604.*

XIX. The *obeitfok*, or, the *short-tongue*, which is said "to be a sea-fowl of Greenland, which "having scarce any tongue, preserves an eternal "silence, but in compensation, it has a long "bill and leg, so that it might be called the "sea stork. This gluttonous bird devours an "incredible number of fish, which it brings up "from the depth of twenty or thirty fathoms, "and which it swallows whole, though they be "very large. It can be killed only when engaged fishing, for it has large eyes, protuberant, and very vivid, crowned with a yellow "and red circle." *Hist. Gen. des Voy. tom. p. 45.*

XX. The *tornoviarfuk* of the same frozen seas of Greenland, which is a maritime bird of the size of a pigeon, and approaching the genus of the duck. It is difficult to determine the family of this bird, of which Egede says nothing more. *Diët. Groënl. Hafniæ, 1750.*

XXI. Besides the birds of Poland known to naturalists, and enumerated by Rzaczynski, there are some "which he knows only by the vulgar

* Petit de la Croix remarks in the same place, that the *chon-kui* is a bird of prey, which is presented to the king of the country, decked with many precious stones, as a mark of homage; and that the Russians, as well as the Tartars of the Crimea, are bound by their treaties with the Ottomans to send one every year to the Porte, decorated with a certain number of diamonds.

" name,

"name, and which he refers to no species."
 Three of these particularly seem, from their natural habits, to belong to the tribe of cloven-footed water fowl.

The *derkacz* "so called from its cry, *der, der*, frequently repeated. It inhabits the low and wet meadows; it approaches the size of the partridge; its legs are tall, and its bill long." (This may be a rail).

The *baystra*, which is pretty large, of a dark brown colour, with a thick and long bill: it fishes in rivers, like the heron, and nestles on trees.

The third is the *krzyczka*, which lays spotted eggs in the rushes among bogs.

XXII. The *arau* or *kara* of the northern seas; "it is a bird larger than a duck; its eggs are very good to eat, and its skin serves for furs; its head, neck, and back, are black; its belly blue; its bill long, *straight*, black, and *pointed*." *Hist. Gen. des Voy. tom. xix. p. 270.* From these characters the *arau* or *kara* must be a species of diver.

XXIII. The *John-van-Ghent* or *John-de-Gand*, of the Dutch navigators at Spitzbergen (*Recueil des Voyages du Nord, tom. ii. p. 110*). which, they say, is at least as large as a stork, and has the same figure; its feathers are white and black; it cuts the air without almost stirring its wings; and as soon as it approaches the ice,

ice, it turns back again : it is a sort of bird calculated for falconry ; it darts suddenly, and from a great height, upon the water, which makes us presume that it has a very quick sight. The same birds are seen in the Spanish sea, and almost through the whole of the north sea, but chiefly near the herring fisheries.

This *John-de-Gand* seems to be the great mew or great gull, which we denominated the *black mantle*.

XXIV. The *hav-fule*, "which the Scots," says Pontoppidan, "call the *gentleman*;" which appears to us a species of mew or gull, perhaps the *ratzher* or *counsellor* of the Dutch. We shall transcribe what Pontoppidan relates on this subject, though we can repose little confidence in the Norwegian bishop, ever near the marvellous in his anecdotes, and far from accuracy in his descriptions : "This bird," says he, "serves as a sign to the herring-fishers ; it appears in Norway about the end of January, "when the herrings begin to enter the gulfs, "and it follows them at the distance of a league "from the coast. It is so greedy of this fish, "that the people need only lay herrings on the "edge of their boats to catch the *gentlemen*. "This bird resembles a goose ; its head and "neck are like those of the stork, the bill shorter "and thicker ; the feathers of the back, and of "the under side of the wings, are light white ; "it has a red crest ; its head is greenish and
"black ;

"black; its neck and breast are white." *Hist. Nat. de Norwege, par Pontoppidan; Journal Etranger, Février, 1757.*

XXV. The *pipelines*, of which I find the name in Frezier, and *which bear a resemblance*, he says, *to the sea-bird mauve*: The mauve is the same with the mew or maw; but what he adds, *that they are very well tasted*, agrees not with mews, which are very bad meat.

XXVI. The *margaux*, of which the name used among sailors seems to denote a booby or cormorant, or perhaps both the one and the other. "The wind not being fair for coming out of Saldana Bay," says Flaccourt, we sent twice to the islet of *Margaux*, and each trip the boat was filled with these birds and their eggs. These birds, which are as large as a goose, are there so numerous, that, walking on shore, one cannot avoid trampling on them. When they struggle to take wing, they entangle one another. They are knocked down with a stick as they rise in the air." *Voy. a Madagascar, par Flaccourt; Paris, 1661, p. 250.*

"There were at the same island" (that of birds, near the Cape of Good Hope) says Francis Cauche, "*margots*, bigger than a gosling, with gray feathers, the bill hooked at the point like a hawk's; the foot small and flat, with a pellicle between the toes. They rest on the
" sea;

“ sea; they have broad wings; they make their
 “ nests in the middle of the island, among herbs,
 “ and never lay more than two eggs.” *Voy. à
 Madagascar; Paris, 1651, p. 135.*

“ In a district of the *isle*” (*of birds, on the tract
 to Canada*), says Sagar Theodat, “ were birds
 “ living separate from one another, and very
 “ difficult to catch, for they bit like dogs; they
 “ are called *margaux*.” *Voy. au Pays des Hurons;
 Paris, 1632, p. 37.*

From these circumstances we are disposed to
 take the *margau* for the shag or little cormorant,
 which we have described.

XXVII. These same shags appear to us to
 have been mentioned by several voyagers, under
 the name of *alcatraz* *, very different from the
 true and great alcatraz of Mexico, which is the
 pelican. (*See the article of the pelican*).

XXVIII. The *fauchets*, which we shall refer
 to the family of sea-swallows. “ The commo-
 “ tion of the elements (in a great storm),” says
 Forster, “ never drove these birds from us; at
 “ times, a black *fauchet* fluttered on the agitated

* *Histoire des Incas; Paris, 1744, tom. ii. p. 277.*—*Voyage de
 Coreal; Paris, 1722, tom. i. p. 345.*—*Hist. Gen. des Voy. tom. i.
 p. 448, & tom. iv. p. 533.* In the latter place it is said, that during
 the night the alcatraz fly as high as possible, and then, putting their
 head under the one wing, they support themselves some time with
 the other, till their body approaching the water, they resume their
 flight to the heavens; thus repeating frequently the same action, they
 may be said to sleep flying. It is scarce necessary to add, that the
 whole of this relation is a fable.

“ surface

" surface of the sea, and broke the force of the
 " waves, by exposing itself to their action. The
 " aspect was then threatening and terrible."
 (*Cook's Second Voyage.*)—" We perceived the
 " high grounds (or the west entrance to the
 " Straits of Magellan) drifted and covered with
 " snow almost to the water's edge; but great
 " flocks of *fauchets* made us hope to find re-
 freshments, if we could meet with a haven."
Idem. — Fauchets, in $27^{\circ} 4'$ lat. south, and 103°
 $56'$ long. west, about the first of March. *Idem* *.

XXIX. The *backer* or *pecker*, of the inha-
 bitants of Oëland and Gothland, which we re-
 cognize more certainly to be a sea-swallow, from
 the particulars we learn of its instinct. " If
 " any person goes to the place where these
 " birds nestle, they fly round his head, and seem
 " disposed to peck or bite him; at the same
 " time they emit a cry, *tirr, tirr*, repeated in-
 cessantly. The backer comes every year to
 " Oëland, there passes the summer, and leaves
 " that country in autumn: its nest costs it less
 " trouble than that of the ordinary swallows;
 " it lays two eggs, and drops them on the flat
 " ground in the first place it meets; yet it never
 " deposits them among tall herbs; if it lays on a
 " sandy plain, it only excavates a little shallow

* The bird here alluded to is the shearwater or puffin, *Procellaria Puffinus*, described in the body of the work. The French transla-
 tor renders *shearwater* by the word *fauchet*. T.

" hole;

" hole ; its eggs are of the size of pigeons', gray-
 " ish, and spotted with black : this bird sits
 " four weeks ; if little hens' eggs be placed un-
 " der her, she will hatch them in three weeks ;
 " and *the chickens thus hatched are very mis-*
 " *chievous, especially the males.* In the strongest
 " wind, it can hold itself motionless in the air ;
 " and when it marks its prey, it descends swifter
 " than an arrow, and accelerates or retards its
 " force, according to the depth it sees the fish
 " to be at in the water ; sometimes it only dips
 " its bill, and sometimes it plunges till the
 " points of its wings only, and a part of its tail,
 " appear above the surface : its plumage is gray ;
 " all the upper half of its head is pitch-black ;
 " its bill and legs are fire-coloured ; its tail is
 " like that of the swallow. When plucked it
 " is hardly so large as a thrush." *Description of a*
water-fowl of the isle of Oëland ; Journal Etranger,
Fevrier, 1758.

XXX. The *vourousambé* of Madagascar, or *grî-*
fet, of the voyager Flaccourt (*p.* 165), is proba-
 bly also a sea-swallow.

XXXI. The *ferret* of the islands Rodrigue
 and Maurice, which Leguat mentions in two
 places of his voyages. " These birds," says he,
 " are of the bulk and nearly of the figure of
 " a pigeon : their general resort in the evening,
 " was to a small islet entirely naked. We found
 " their eggs lying on the sand, and quite near
 " each

" each other; yet they have only a single egg at
 " each hatch . . . We carried off three or four
 " dozens of young, and as they were very fat,
 " we had them roasted: we found they had
 " nearly the taste of the snipe, but we were
 " hurt by them, and never afterwards were
 " tempted to taste them . . . Having returned
 " some days after to the island, we found that
 " the *ferrets* had forsaken their eggs and their
 " young in the whole of the district which we
 " had visited . . . The goodness of the eggs made
 " amends for the bad quality of the flesh of the
 " young. During our stay we ate many thou-
 " sands of these eggs: they are spotted like
 " those of a pigeon." *Voyage de François Le-*
guat; Amsterdam, 1708, tom. i. p. 104, and tom. ii.
pp. 43 & 44.

These *ferrets* appear to be sea-swallows; and
 it would be doubly interesting to know the spe-
 cies, on account of the goodness of their eggs,
 and of the bad quality of their flesh.

XXXII. The *collier* (*charbonnier*), so called
 by Bougainville, and which, from the first cha-
 racters, we might take for a sea-swallow, but in
 the last ones, if they be exact, it seems to differ.
 " The *collier*," says Bougainville, " is of the
 " size of a pigeon; its plumage is of a deep gray,
 " and the upper side of the head white encircled
 " with a gray cord, more inclined to black than
 " the rest of the body; the bill is slender, two
 " inches long, and a little curved at the end;
 " the eyes are bright, the toes yellow, resem-
 VOL. IX. 2 B " bling

"bling those of ducks; the tail is abundantly
 "furnished with feathers, rounded at the end;
 "the wings are much cut out, and each of about
 "eight or nine inches extent. The following
 "days we saw many of these birds (it was in
 "the month of January, and before his arrival
 "at the river de la Plata)." *Voyage autour du*
Monde, tom. i. pp. 22 & 23.

XXXIII. The velvet *fleeces*, *mangas de velado*, of the Portuguese, which, according to the dimensions and the characters that some give, seem to be pelicans, and, according to other notices, present more analogy to the cormorant. It is in the creek at the Cape of Good Hope, that these birds are found. They owe their name to the resemblance of their plumage to velvet (*Hist. Gen. des Voy. tom. i. p. 248*), or to their tips being velvet black (*Tachard, p. 58.*), and that in flying their wings appear to fold like the arm. (*Hist. des Voy. ibid.*) According to some, they are all white, except the end of the wing, which is black; they are as large as the swan, or, more exactly, as the goose (*Merolla, in the Hist. Gen. des Voyages, tom. iv. p. 534*); according to others, they are blackish above and white below. (*Tachard.*)

M. de Querhoënt says, that they fly heavily, and scarcely ever leave the deep water; he believes them to be of the same genus with the *margaux d'Ouessan*. (*Remarks made on board his Majesty's ship Victory, by the Viscount de Querhoënt*);

boënt); but these margaux, as we have said, must be cormorants.

XXXIV. The *stariki* and *gloupichi* of Steller, "which," he says, "are reckoned unlucky birds at sea; their belly is white, and the rest of their plumage is of a black, sometimes verging on blue: there are some entirely black, with a vermilion bill, and a white crest on the head."

"The last, which derive their name from their stupidity, are as large as a river-swallow. The islands, or the rocks, situated in the strait which separates Kamtschatka from America, are all covered with them. It is said, that they are black as painters' umber, with white spots over their whole body: the Kamtschadales, to catch them, have only to sit near their retreat, clothed in a *pelisse* with hanging sleeves: when these birds come in the evening to their holes, they creep into the *pelisse* of the hunter, who takes them without trouble."

"In the species of *starikis* and *gloupichis*," adds Steller, "they reckon the *kaiover* or *kaior*, which is said to be very cunning: it is a black bird, with red bill and toes: the Cossacks call it *iswojchiki*, because it whistles like horse-drivers." *Hist. Gen. des Voy. tom. xix. p. 271.*

Neither these characters nor these peculiarities, of which a part favours of fable, are sufficient to discriminate these birds.

XXXV. The *tavon* of the Philippines, of which the name *tavon* signifies, it is said, to

cover with earth, because this bird lays a great number of eggs, and deposits them in the sand, with which it covers them. Its description and history, of which Gemelli Carreri was the first author (*Voyage autour du Monde; Paris, 1719, tom. v. p. 286*) are filled with so many incongruities, that we cannot admit it into the text, but throw it into a note *.

XXXVI. The *parginia*, a name which the Portuguese, according to Kœmpfer, give to a kind of bird which the Japanese call *kanjemon*: it is found in an island on the track from Siam to Manilla. The eggs of these birds are almost

* Of many singular birds on these islands, the most wonderful by its properties is the *tavon*. It is a sea-fowl, black, and smaller than a hen, but its legs and neck pretty long; it lays its eggs on sandy ground, and these are nearly as large as those of a goose: what is most surprizing, after the young are hatched, the yolk is still found without any of the white . . . the young are roasted before they are covered with feathers, and they are as good as the best pigeons. The Spaniards often eat, from the same dish, the young and the yolk of the egg; but what follows merits much more admiration: the female gathers her eggs, to the number of forty or fifty, into a small ditch, which she covers with sand, and of which the heat of the sun makes a sort of furnace: at length, when the brood have strength to shake off the shell, and open the sand to come out, she perches on the neighbouring trees; she makes several circuits round the nest, screaming with all her might, and the young, roused by this sound, make such motions and efforts, as to burst through every obstacle, and find their way to her. The *tavons* make their nests in the months of March, April and May, the time when, the sea being more placid, the waves do not rise so high as to hurt them: the sailors seek eagerly for these nests along the beach; when they find the sand thrown up, they open the spot with a stick, and take out the eggs and the young, which are equally prized. *Hist. Gen. des Voy. tom. X. p. 411.*

as large as hens' eggs. They are found the whole year in that island, and they proved a great resource for the subsistence of the crew in this traveller's ship. *Kæmpfer, Hist. Nat. du Japon, tom. i. pp. 9 & 10.* It is obvious that this cursory mention will not ascertain the *par- ginia* of the Portuguese.

XXXVII. The *misago* or *bisago*, which the same Kæmpfer compares to a hawk (*tom. i. p. 113*). It is scarce more recognizable than the preceding; however, we think that it should be ranged among the aquatic birds, since it feeds on fish. "The *misago*," says he, "lives principally upon fish; it makes a hole in some rock on the coasts, and there lays its prey or its provisions, which it is remarked, preserve as well as the pickled fish, *altiar*; and for this reason it is called *bisagonobusi*, or *altiar* of Bisago: it tastes extremely salt, and sells very dear. Those who discover this kind of larder, may draw great profit from its store, provided they do not rob it completely at once."

XXXVIII. Finally, the *azores*, of which we have only this notice. "The name *Azores* was given to the islands, on account of the great number of birds of this kind that were seen or discovered on them." *Hist. Gen. des Voy. tom. i. p. 12.*

These Azore birds certainly are not an unknown species; but it is impossible to recognize it under this name, which we can meet with no-where else*.

* The Portuguese discovered these islands, and in their language *azor* signifies a falcon.—T.

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A P P E N D I X,

BY THE

T R A N S L A T O R.

DIX,

A P P E N D I X, I.

OF SYSTEMS IN ORNITHOLOGY.

THE most valuable work transmitted from the ancients on the subject of Ornithology, is contained in Aristotle's History of Animals. That great and universal genius, assisted by the liberality of his pupil Alexander the Great, conducted the vast undertaking with admirable success. He possessed the rare faculty of acute perception; and the happy flexibility of the Greek language enabled him to mark with precision the distinguishing features of animals. Yet that philosopher affects a dry and concise style, that frequently borders on obscurity; nor is he always at sufficient pains to discuss and reject popular notions. The natural History of Pliny is a compilation which oftener displays the taste and elegance of its author than his critical discernment. Hesiod, Ælian, Columella, Aulus Gellius, and other writers, have left us some hints respecting the œconomy of animals. The Christian fathers indulged much in turgid figurative language, and occasionally
drew

drew their comparisons from the current opinions in natural history. But the sun of science was now set, and that dismal night succeeded, which overspread the nations of Europe. After the lapse of twelve centuries, a ray of light burst in upon the Christian world; and men of the greatest abilities laboured with enthusiasm to restore the noble remains of antiquity. The commentators on the treatises of natural history were not in general so well qualified for acquitting themselves with credit: yet in that line of criticism, Turner, and the celebrated Joseph Scaliger, deserve applause. At this period, America had been discovered and explored, settlements formed along the coast of Africa, and an extensive intercourse established with India. From these countries were imported birds of singular forms and wonderful beauty, which, while they increased the subjects of Ornithology, incited powerfully to the study of it. Prompted by a love of science, the learned and sagacious Belon travelled into Greece, and Egypt, and Asia Minor. Upon his return to France, he published his observations; but his History of Birds was not given to the world till the year after his death, in 1555. Gesner composed, in 1557, a Treatise on the Birds found in Switzerland. Various other productions appeared; and from all these sources, Aldrovandus, with industry and erudition, but with little taste or judgment, compiled his voluminous History
of

of Birds, in 1599. Marcgrave's account of the birds discovered in Brazil, was published 1648. Mr. Ray, with the assistance of his friend, Francis Willughby, Esquire, wrote a System of Ornithology in 1667, though it was not printed till 1678; a work of considerable merit. Barre published his System in 1745; Klein, in 1750; Moehring, in 1753; and Brisson, in 1760. Linnæus attempted a classification of birds in his *Fauna Suecica*, in 1746, which he improved in his *Systema Naturæ*, in 1758; but it has been greatly altered and enlarged in the subsequent editions. One of the neatest systems of Ornithology was composed in our own language, by the ingenious Thomas Pennant, Esquire, in 1772, and published in 1781. He contents himself, however, with the outlines. We proceed to give an abstract of his method.

Mr. Pennant distinguishes birds into the Land Birds and the Water Fowl. The first Division comprehends six Orders. These are :

- I. The RAPACIOUS. Including three Genera:—The Vulture, the Falcon, and the Owl.
- II. The PIES. Including twenty-six Genera:—The Shrike, the Parrot, the Toucan, the Motmot, the Hornbill, the Beef-eater, the Ani, the Wattle, the

the Crow, the Roller, the Oriole, the Grakle, the Paradise, the Curucui, the Barbet, the Cuckoo, the Wry-neck, the Woodpecker, the Jacamar, the Kingsfisher, the Nuthatch, the Tody, the Bee-eater, the Hoopoe, the Creeper, the Honeyfucker.

III. The GALLINACEOUS. Including ten Genera :—The Cock, the Turkey, the Pintado, the Curaffo, the Peacock, the Pheasant, the Grouse, the Partridge, the Trumpeter, and the Bustard.

IV. The COLUMBINE. Containing only one Genus :—The Pigeon.

V. The PASSERINE. Including sixteen Genera :—The Stare, the Thrush, the Chatterer, the Coly, the Grosbeak, the Bunting, the Tanager, the Finch, the Flycatcher, the Lark, the Wagtail, the Warblers, the Manakin, the Titmouse, the Swallow, and the Goatsucker.

VI. The STRUTHIOUS. Containing only two Genera :—The Dodo, and the Ostrich.

THE Second Division comprehends three Orders.

These are —

VII. The CLOVEN-FOOTED. Including seventeen Genera:—The Spoonbill, the Screamer, the Jabiru, the Boat-bill, the Heron, the Umbre, the Ibis, the Curlew, the Snipe, the Sandpiper, the Plover, the Oyster-catcher, the Jacana, the Pratincole, the Rail, the Sheath-bill, and the Gallinule.

VIII. The PINNATED-FEET. Containing three Genera:—The Phalarope, the Coot, and the Grebe.

IX. The WEB-FOOTED. Including seventeen Genera:—The Avoset, the Courier, the Flammant, the Albatross, the Auk, the Guillemot, the Diver, the Skimmer, the Tern, the Gull, the Petrel, the Merganser, the Duck, the Penguin, the Pelican, the Tropic, and the Darter.

In this distribution, Mr. Pennant attends sometimes to the Ornithology of Brisson; but in general he adheres to that of Linnæus. Of this work we shall now give a full view, with occasional

occasional hints respecting the œconomy and habits that obtain in certain genera.

Linnæus divides the birds into six orders, which he thus defines :

I. The ACCIPITRES.

BILL, somewhat curved : *upper mandible* dilated on both sides behind the tip, and armed with a half-tooth : *nostrils* wide.

FEET, close-seated, short, robust : *toes*, warty under the joints, with nails bent, and very sharp.

BODY, with muscular head and neck ; *skin* adhesive. Impure.

FOOD, the rapine and carnage of carcases.

NEST, placed in lofty situations ; *eggs* about four : *female* the larger. — Monogamous.

II. The PICÆ.

BILL, knife-shaped, with a convex back.

FEET, furnished with three toes before and one behind, short and stout.

BODY, stringy and impure.

FOOD, gathered from dirt and rubbish.

NEST, built on trees ; the *male* feeding the *female* during incubation. — Monogamous.

III. The

III. The ANSERES.

BILL, smooth, covered with an epidermis, enlarged at the tip.

FEET, adapted for swimming, the toes palmated by a membrane: *legs* short and compressed.

BODY, plump; skin adhesive; plumage valuable. Rankish.

FOOD, procured in the water from plants, fish, &c.

NEST, usually on land. The *mother* seldom nurses her young. For the most part polygamous.

IV. The GRALLÆ.

BILL, inclined to cylindrical.

FEET, adapted for walking, with thighs half-naked.

BODY, compressed with a very thin skin: *tail* short. Sapid.

FOOD, gathered in marshes from insects.

NEST, usually on land: nuptials various.

V. The GALLINÆ.

BILL, convex: *upper mandible* arched above the lower: *nostrils* arched with a cartilaginous membrane.

FEET, adapted for running: the *toes* rough beneath.

BODY, fat, muscular. Pure.

FOOD,

FOOD, collected on land from seeds, and macerated in a craw. Pulverent.

NEST, on the ground, inartificial: *eggs* numerous. Food pointed out to the *young*. Polygamous.

VI. The PASSERES.

BILL, sharpened conically.

FEET, adapted for hopping, tender, cleft.

BODY, slender. Pure in the *granivorous* kinds: impure in the *carnivorous*.

NEST, artificial. Food crammed into the *young*. Monogamous. Song.

THE First Order, that of the ACCIPITRES, comprehends four Genera. These are:—

I. VULTUR.

Characters. BILL straight, blunt at the tip.

HEAD featherless, covered behind with naked skin.

TONGUE bifid.

NECK retractile.

This genus contains thirteen species, besides varieties. Their natural habits are these:— They are very voracious; prefer dead carcases, even though putrid, and will not attack living animals, unless urged by famine; fly slowly,

slowly, except when risen to a certain height, and in flocks; are endowed with a most acute smell.

II. FALCO.

Characters. BILL hooked, furnished at its base with a cere.

HEAD closely beset with feathers.

TONGUE bifid.

This is a very extensive genus, containing one hundred and twenty species, exclusive of a multitude of varieties. It admits of four subdivisions, and includes several of the vultures, the eagles, the kites, the hobbies, the falcons, and the hawks.

III. STRIX.

Characters. BILL hooked, and without a cere.

NOSTRILS oblong, concealed by reclining bristly feathers.

HEAD large, with great ears and eyes.

TONGUE bifid.

This genus contains the owls, which form forty-three species, besides many varieties, and ranged in two subdivisions; *the eared* and the *earless*. These birds are nocturnal, and prey on small birds, mice and bats; most of them have woolly feet; their outer toe can be turned back; their ears are broad; their eyes large and glaring.

IV. LANIUS.

Characters. BILL pretty straight, with a tooth on each side near the tip, and naked at the base.

TONGUE jagged.

This genus contains the butcher-birds or shrikes, forming fifty-three species, besides a few varieties. Their middle toe is connected to the first joint.

THE Second Order, that of the PICÆ, comprehends twenty-three Genera:—Of these eleven have *ambulatory* feet; that is, have three distinct toes before and one behind; eight have *scanfory* feet, that is, have two toes before and two behind; and four have *gressory* feet, that is, have two fore toes connected, but without a membrane.

I. PSITTACUS.

Characters. BILL hooked, the upper mandible moveable, and furnished in many with a cere.

NOSTRILS at the base of the bill, and round.

TONGUE fleshy, obtuse, entire.

FEET *scanfory*.

This genus contains the parrots, parrakeets, macaos, and lories, amounting to one hundred and forty-one species, besides numerous varieties.

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These birds are sub-divided into those with *short* and those with *long* tails. Their head is large, the summit flat, their feet short: they are garrulous, docile, long-lived: subsist chiefly on nuts, acorns, the seeds of pompions, &c.: they climb by means of the bill, and when angry they erect their feathers: they are not found in high latitudes; they occur however in the thirty-fourth degree, but are most frequent in the zone extending twenty-five degrees on each side of the equator. In their natal regions they are often eaten.

II. RAMPHASTOS.

Characters. BILL exceeding large, hollow, convex, serrated outwards; both mandibles curved at the tip.

NOSTRILS behind the base of the bill, long and narrow.

TONGUE feathery.

FEET in most of the species scanfory.

This singular genus contains the toucans and motmots, distributed into sixteen species. These birds occur in South America between the tropics: they cannot bear cold; live chiefly on dates, and are easily tamed; in their native climate they fly in little companies of eight or ten; nestle in holes made in trees by the woodpeckers, and lay two eggs; the individuals are numerous.

III. BUCEROS.

Characters. BILL convex, curved, knife-shaped, large, and
ferrated outwards: the front bare,
and swelling with bone.
NOSTRILS behind the base of the bill.
TONGUE short and sharp.
FEET gressory.

This genus contains the hornbills, which form twelve species: they correspond in their habits, and even in their structure, to those of the preceding genus, and inhabit the same parallels in the old world.

IV. BUPHAGA.

Characters. BILL strait and subquadrangular; the mandibles
swelling and entire, swelling still
more outwards.
FEET ambulatory.

Only one species has yet been found; and this the African beef-eater.

V. CROTOPHAGA.

Characters. BILL compressed, semi-oval, arched, and keel-
shaped on the ridge; the upper
mandible angled at both margins.
NOSTRILS pervious.

This genus includes the anis, of which there are only three species.

VI. GLAU-

VI. GLAUCOPIS.

Characters. BILL curved, vaulted; the under mandible shorter, and carunculated at the base.

NOSTRILS flat, half covered with a semi-cartilaginous membrane.

TONGUE sub-cartilaginous, notched and ciliated at the tip.

This genus contains only a single species, the cinereous wattle-bird, a native of New Zealand. It walks on the ground, and seldom perches on trees. It has a piping or murmuring voice. Its flesh is well tasted. Length fifteen inches.

VII. CORVUS.

Characters. BILL convex, knife-shaped.

NOSTRILS hid beneath reclining bristly feathers.

TONGUE cartilaginous and bifid.

FEET ambulatory.

This genus contains the ravens, the crows, the rooks, and the jays: the number of species is forty-six, and there are several varieties. Most of these birds occur in every climate; are exceedingly noisy; nestle upon trees, and lay six eggs; and take both animal and vegetable food.

VIII. CORACIAS.

Characters. BILL knife-shaped, curved at the tip, bare of feathers at the base.

TONGUE cartilaginous and bifid.

FEET ambulatory.

This genus contains the rollers, of which there are seventeen species. They are dispersed over the whole globe, and are remarkable for their short legs.

IX. ORIOLUS.

Characters. BILL conical, convex, very sharp and strait; the upper mandible somewhat longer, and slightly notched.

TONGUE bifid and sharp.

FEET ambulatory.

This genus contains the orioles, which are ranged in fifty-two species, exclusive of several varieties. These birds are found chiefly in America, and have pendulous nests: they are numerous and gregarious; noisy and voracious, subsisting on grain.

X. GRACULA.

Characters. BILL convex, knife-shaped, somewhat naked at the base.

TONGUE entire, somewhat enlarged and fleshy.

FEET ambulatory.

This genus contains the grakles, which amount to twelve species. None of these inhabit Europe: they are remarkable for their thick bill compressed at the sides; their minute nostrils placed at its base; their hooked sharp nails; and the middle of their fore toes is connected with the exterior one.

XI. PA-

XI. PARADISEA.

Characters. BILL covered with the downy feathers of the
bridle.

FLANK-FEATHERS longer.

TAIL-QUILLS, the two upper detached and un-
webbed.

This singular and beautiful genus contains the
paradise birds, which amount to nine species.
They chiefly inhabit New Guinea, from which
they remove in the dry season to the adjacent
islands: their nostrils are small, and covered with
feathers; their tail consists of ten quills, of which
the two mid-ones are webbed only at the root
and the tip; their feet are large and stout; the
middle of the fore toes is connected to the outer
at the first joint.

XII. TROGON.

Characters. BILL shorter than the head, knife-shaped, hook-
ed, serrated at the margin of the
mandibles.

FEET scanfory.

This genus contains the curucuis, of which
there are seven species, besides some varieties.
They are natives of the hotter parts of Ame-
rica, where they live solitary in the close, swampy
forests, and sit on the lower boughs: they take
very short flights; subsist upon insects; their
body is long shaped; their feet short; their tail
very long, and containing twelve quills.

XIII. BUCCO.

Character. BILL knife-shaped, compressed laterally, notched on each side at the tip, bent, with a chap stretching forward below the eyes.

NOSTRILS hid under reclining feathers.

FEET scanfory.

This genus contains the barbets, which form seventeen species. They occur in Africa, but chiefly inhabit Asia and the hotter parts of America. They are reckoned stupid birds: their bill is stout and somewhat strait, covered almost completely with bristles.

XIV. CUCULUS.

Characters. BILL somewhat taper.

NOSTRILS slightly protuberant at the margin.

TONGUE arrow-shaped, flat, entire.

FEET scanfory.

This genus contains the cuckoos, which amount to forty-eight species besides varieties. They occur in both continents.

XV. YUNX.

Characters. BILL somewhat taper and sharpened, faintly bent for a short space.

NOSTRILS concave and naked.

TONGUE taper, worm-shaped, very long, and pointed at the tip.

TAIL-QUILLS are ten in number, flexible.

FEET scanfory.

This

This genus contains only two species, the wryneck and the minute woodpecker; the former a native of Europe and Asia, the latter of America.

XVI. PICUS.

- Characters.* BILL many-sided, strait, wedged at the tip.
 NOSTRILS hid under reclining bristly feathers.
 TONGUE taper, worm-shaped, very long, bony,
 missile, pointed, beset at the tip
 with reflected bristles.
 TAIL-QUILLS amount to ten, stiff and pointed.
 FEET scanfory.

This genus contains the woodpeckers, of which there are fifty-three species. They are common to both continents: they settle on decayed rotten trees, and sometimes bore into such as are fresh in search of insects and larvæ; they cut with their bill, and make a hideous, grating noise; they are guided to their prey by the ear, and extract it from the cavities by injecting the bill.

XVII. SITTA.

- Characters.* BILL awl-shaped and somewhat taper, strait, extended, and very entire; the upper mandible a little broader, compressed at the tip.
 TONGUE notched and jagged, short, with a horny tip.
 NOSTRILS small, covered with whiskers.
 FEET ambulatory.

This genus contains the nuthatches and loggerheads, which are ranged in eight species, exclusive of varieties; they are found in both continents,

XVIII. TO-

XVIII. TODUS.

Characters. BILL awl-shaped, flattish, obtuse, strait, with broad bristles at the base.

FEET gressory.

This genus contains the todies, of which there are sixteen species: they inhabit the warmer parts of America; are much analogous to the fly-catchers, only in the latter the mid fore-toe is detached from its origin.

XIX. ALCEDO.

Characters. BILL three-sided, thick, strait, long, pointed. TONGUE fleshy, very short, flat, and sharp.

FEET for the most part gressory.

This genus contains the kingfishers, which, exclusive of varieties, amount to forty species. They are dispersed over the whole globe; inhabit chiefly the water, and live upon fish, which they catch with surprizing alertness, swallowing them entire, and afterwards rejecting the undigested parts: though their wings are short, they fly swiftly: their prevailing colour is sky-blue; their nostrils are small, and generally covered.

XX. MEROPS.

Characters. BILL curved, four-sided, flattened, keel-shaped, sharp.

NOSTRILS small, situated at the base of the bill.

TONGUE slender, for the most part fringed at the tip.

FEET gressory.

This

This genus contains the bee-eaters, which make twenty-one species, besides several varieties. These birds inhabit America, and are unfrequent; they live upon insects, especially bees and wasps; imitate the kingfishers in the construction of their nests: most of them have a harsh voice.

XXI. UPUPA.

Characters. BILL arched, long, slender, convex, somewhat compressed, and rather blunt.

NOSTRILS minute, situated at the base of the bill.

TONGUE obtuse, very entire, triangular, and very short.

FEET ambulatory,

This genus contains the hoopoes and the promeropses, ranged in eight species.

XXII. CERTHIA.

Characters. BILL arched, thin, somewhat triangular, sharp.

TONGUE sharp.

FEET ambulatory.

This genus contains the creepers, which amount to fifty-four species. They are spread over the whole globe; live chiefly on insects; have minute nostrils, and are conspicuous by their twelve tail-quills, their tall legs, their large hind-toe, and their long hooked nails: in many species the tongue is sharp, in others it is flat at the tip, in others ciliated, and in a few tubulated.

XXIII. TRO-

XXIII. TROCHILUS.

Characters. BILL awl-shaped, thread-like, the tip tubulated, longer than the head: the upper mandible sheaths the under.

TONGUE thread-like, tubulated with two coalescing threads.

FEET ambulatory.

This exquisite miniature genus contains the various humming-birds, which form no less than sixty-five species. They admit of a sub-division into those with *curved* bills and those with *straight* bills. They inhabit the new world, and, except two species that migrate to the north, they are all confined to South America. Their bill and feet are feeble, their nostrils minute; their tongue darts out: they have ten tail-feathers, which are bespangled with the most glowing colours: they are forward and quarrelsome; fly very swift; feed hovering upon their wings, and suck the nectar from the flowers. The whirring of their wings is louder than the notes of their voice: they are gregarious; build an elegant hemispherical nest of the woolly substance of plants, and lay two white eggs, about the size of peas, upon which the male and female sit by turns: the young ones are attacked by spiders.

THE Third Order, that of the ANSERES, comprehends thirteen Genera : — Of these four have the bill furnished with a tooth ; in the other nine it is plain.

I. ANAS.

Characters. BILL lamellar and toothed, convex, obtuse.
TONGUE ciliated, obtuse.

This very extensive genus includes the swans, the geese, the ducks, the sheldrakes, the shovellers, the gadwalls, the wigeons, the garganeys, and the teals, forming in all one hundred and twenty-four species.

II. MERGUS.

Characters. BILL denticulated, of a cylindrical awl-shape, hooked at the tip.

This genus contains the mergansers, the dun-divers, and the smews, which amount to seven species, with several varieties.

III. ALCA.

Characters. BILL plain, short, compressed, convex, often furrowed transversely ; the lower mandible swelled before the base.

NOSTRILS behind the bill.

FEET, in most of the species, three-toed.

This genus contains the auks, which are ranged in twelve species. They inhabit the northern seas ; they are silly birds ; remain concealed

cealed during the night ; nestle in burrows, or in the holes and clefts of rocks, and lay only a single egg, which is very large in proportion to their size : they are pretty uniform in their colours, black above and white below ; they are shaped like a goose, their feet being placed behind the point of equilibrium ; the bill is large and conical, stretching, in curved lines and surfaces, to a sharp tip.

IV. APTENODYTES.

Characters. BILL strait, smooth, flattish, and somewhat knife-shaped ; the upper mandible marked longitudinally with oblique furrows, the lower truncated at the tip.

FEET fettered and palmated.

WINGS consist of pinions, without shafts.

This genus contains the penguins, of which there are eleven species. They are analogous to the *alce* or auks in their colour, their food, their habits, their stupidity, the nests and eggs, and the remote position of their feet : but they are found only in the South Seas ; they are utterly incapable of flying, the feathers of their wings resembling scales ; their feet consist of four toes ; their plumage is softer, of a different texture, and resists the water better : their fatness enables them to support cold : they swim very fast and alertly ; sometimes they are discerned walking in companies on land : they hatch standing ; make a clangorous noise like geese, but hoarser : their nostrils are slits concealed

cealed in the furrow of the bill; the palate and bill are planted with several rows of reflected bristles; their body is fleshy; the wings are covered with a dilated strong membrane; the tail is wedge-shaped and short, its feathers very stiff.—The name of this genus is formed from *α, privat.* and *πηναι*, to fly.

V. PROCELLARIA.

Characters. BILL plain, flattish; the mandibles equal; the upper with a hooked tip, the lower with a flat channelled tip.

NOSTRILS in a truncated cylinder, leaning above the base of the bill.

FEET palmated; the hind-nail close set, and without any toe.

This genus contains the petrels, which amount to twenty-three species. These birds keep on the sea in the most tempestuous weather, and seldom repair to the shores: their legs are naked a little above the knees.—The name of the genus formed from *Procella*, a storm.

VI. DIOMEDEA.

Characters. BILL strait; the upper mandible hooked at the tip, the under truncated.

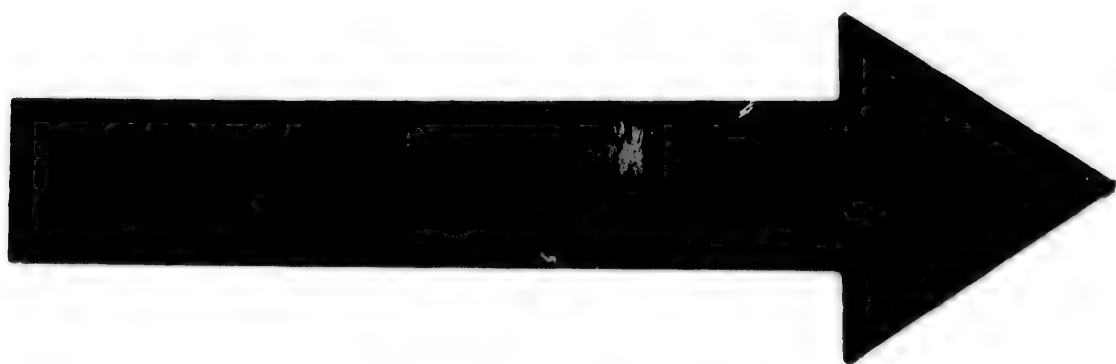
NOSTRILS oval, broad, prominent, and lateral.

TONGUE extremely small.

FEET furnished with three toes.

This genus contains the albatrosses, of which there are only four species.

VII. PE-



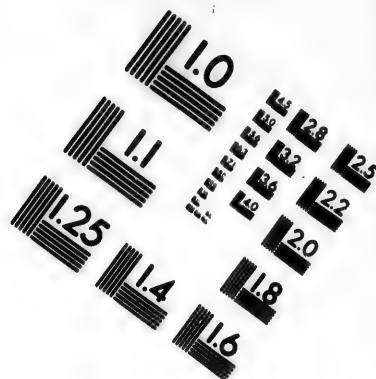
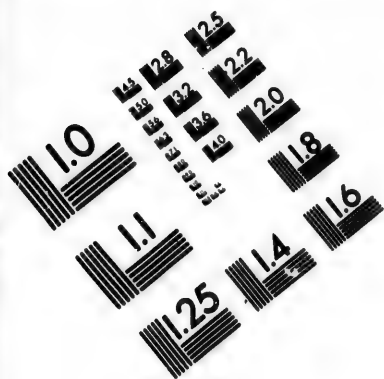
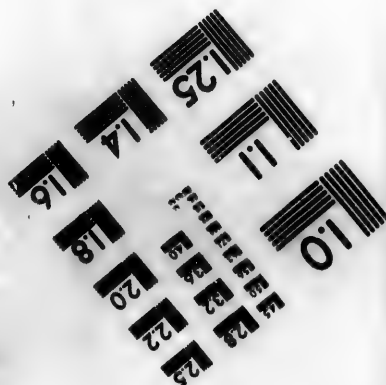
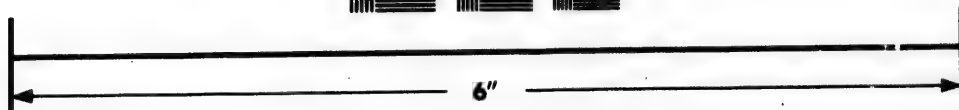
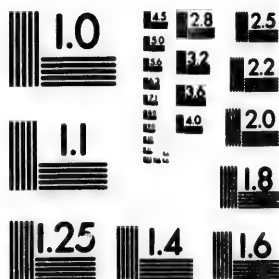


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VII. PELECANUS.

Characters. BILL straight; the tip consisting of a hooked nail.
 NOSTRILS obscure chinks.
 FACE somewhat naked,
 FEET balanced; all the four toes palmated.

This genus contains the pelicans, the man-of-war birds, the cormorants, the shags, the boobies, and the gannets, amounting to thirty-two species, which are sub-divided into those with *plain* bills and those with *ferrated* bills. These birds are so dextrous at fishing, that they have sometimes been trained for that purpose. Most of them inhabit the seas, though some occur on land; they have a long bill, in the lateral furrow of which the nostrils are seated: they are gregarious and very voracious; the nail of their mid-toe is generally ferrated.

VIII. PLOTUS.

Characters. BILL straight, sharpened, toothed.
 FACE AND CHIN naked.
 FEET short, palmated, all the toes connected.

This genus contains the darters, which form three species, and as many varieties. Their head is small, their neck slender, and extremely long; and they are easily distinguished by their nostrils, which are placed like long chinks at the base of the bill: they occur in the warm countries of the south; and live upon fish alone, which they catch by wreathing their neck like a serpent, and then darting their bill.

IX. PHAE-

IX. PHAETON.

Characters. BILL knife-shaped, straight, sharpened, with
chaps gaping behind the bill.

NOSTRILS oblong.

HIND-TOE turned forwards.

This genus contains the tropic-birds, which form three species. They are distinguished by their flat bill, bent a little downwards, by the lower mandible being angled, by their four-toed and palmated feet, by their wedge-shaped tail, by the two middle quills of the tail being exceeding long.

X. COLYMBUS.

Characters. BILL plain, awl-shaped, straight, sharpened.

CHAPS toothed..

NOSTRILS slits at the base of the bill.

FEET fettered.

This genus consists of twenty-eight species, which are subdivided into those with *three toes*, corresponding to the guillemots; those with *four toes* and *palmated*, corresponding to the divers; those with *four toes* and *lobed*, corresponding to the grebes. The birds of this genus cannot walk, but they run very swiftly on the water, and swim and dive with the utmost agility: their skin is adhesive, and their tail short. The *guillemots* live generally at sea; have a slender tongue, of the size of their bill, which is flat, and covered at its base with short feathers; their upper man-

dible somewhat bent at the tip: their flesh is commonly stringy, and their eggs nauseating; they keep together in flocks, and lay on the bare rocks. The *divers* in the northern climates inhabit also the lakes: their bill is strong, not so sharp, cylindrical; the margin of the mandibles bent inwards, the upper mandible exceeding the under; the nostrils parted by little membranes; the tongue long, sharp, serrated on both sides at the root; the legs small and flattened; they have black stripes on their thighs, and twenty tail-quills. They are monogamous; lay their eggs on the turf; fly difficultly, and pass the time of incubation in fresh water. The *grebes* have no tail; their bill is strong; their straps bald; their tongue slightly cleft at the tip; their body squat, and thickly clothed with soft shining feathers: their wings are short, their legs compressed. They inhabit chiefly the lakes of the south of Europe, and are subject to much variety of colour.

XI. LARUS.

Characters. BILL plain, straight, knife-shaped, and somewhat hooked at the tip; the under mandible swelled below the tip.

NOSTRILS slits, broader before, and seated in the middle of the bill.

This genus contains the mews and gulls, which amount to twenty species, besides some varieties. They are natives of the northern climates; their body light, their wings long, their tongue

tongue somewhat cleft, their bill strong, their legs short, and naked above the knees: they live chiefly on fish, even on such as are dead, and reject the undigested portions; they are restless and unquiet; their eggs may be eaten, but their flesh is loathsome. The young continue sometimes spotted till the third year, which occasions a confusion in the classification.

XII. STERNA.

Characters. BILL plain, awl-shaped, somewhat straight, sharp, flattish.

NOSTRILS slits placed at the base of the bill.

This genus contains the terns and noddies, ranged in twenty-six species. They live for the most part on the sea, subsisting chiefly on fish; are not shy; their tail is forked, their wings very long, their hind-toe small, their tongue slender and sharp: the young are spotted.

XIII. RYNCHOPS.

Characters. BILL straight: upper mandible much the shorter; the lower truncated at the tip.

This genus contains only a single species, together with a variety; both natives of North America. In their habits and figure they resemble much the gulls: their legs are weak, and their nostrils pervious.

The Fourth Order, that of the GRALLÆ, comprehends twenty Genera: Two of these have three toes on each foot, and the rest four toes.

I. PHŒNICOPTERUS.

Characters. BILL bare, with a broken curvature, and toothed.
NOSTRILS slits.
FEET palmated, three-toed.

This genus contains the flamingos, of which there are only two species: they rarely occur in the warmer parts of Europe, but are found chiefly in Africa and in South America. They seem to occupy the gradation between the order of ANSERES and that of GRALLÆ: their bill is large and thick; the upper mandible keel-shaped, toothed at the margin; the under mandible compressed, furrowed transversely; their nostrils covered with a thin membrane, and pervious; their hind toe very small, the membrane connecting the fore toes being extended to the nails.

II. PLATALEA.

Characters. BILL flattish, long, thin; the tip dilated, orbiculated, and plain.
NOSTRILS minute, placed at the base of the bill.
TONGUE small, sharpened.
FEET four-toed, semi-palmated.

This genus contains the spoonbills, which form only three species.

III. PA-

III. PALAMEDEA.

- Characters.* BILL conical ; the upper mandible hooked.
 NOSTRILS oval.
 FEET four-toed, cleft, only a very short membrane connecting the toes at their origin.

This genus contains the screamers, which are only two in number, and found in South America.

IV. MYCTERIA.

- Characters.* BILL somewhat rising, sharp : upper mandible three-sided, and very straight ; the under triangular, sharpened, rising.
 FRONT bald.
 NOSTRILS slits.
 TONGUE wanting.
 FEET three-toed.

Of this genus a single species only has been discovered ; the jabiru, a native of South America.

V. CANCROMA.

- Characters.* BILL swelled ; upper mandible shaped like an inverted boat.
 NOSTRILS minute, placed in the furrow of the bill.
 TONGUE small.
 FEET cleft.

This genus contains the boatbills, which form only two species, both natives of America.

VI. SCOPUS.

- Characters.* BILL thick, compressed, long, straight.
 NOSTRILS linear, oblique.
 FEET three-toed, cleft.

This genus contains only a single species, the umbre, a native of Africa, and of the size of a rook.

VII. ARDEA.

Characters. BILL straight, sharp, long, flattish, with a furrow extending from the nostrils to the tip.
 NOSTRILS linear.
 TONGUE sharpened.
 FEET four-toed.

This extensive genus contains the herons, the storks, the cranes, the egrets, and the bitterns, amounting in all to eighty-eight species. They are ranged in five subdivisions. 1. The *crowned*, whose bill is scarcely longer than the head. 2. The *cranes*, whose head is bald. 3. The *storks*, whose orbits are naked. 4. The *herons*, whose mid-toe is serrated inwards. 5. Those which have *the bill gaping in the middle*. The first subdivision includes two species; the second, five; the third, three; the fourth, seventy-five; and the fifth, three.

VIII. TANTALUS.

Characters. BILL long, awl-shaped, somewhat taper, somewhat arched.
 FACE naked beyond the eyes.
 TONGUE short, and broad.
 JUGULAR POUCH naked.
 NOSTRILS oval.
 FEET four-toed, palmated at the base.

This genus contains the ibises, and some of the curlews: the number of species is twenty-one.

IX. COR-

IX. CORRIRA.

Characters. BILL short, straight, plain.

FEET long, four-toed, and palmated; the toes very short.

This genus contains only a single species, the *trochilus* of Aldrovandus, which is a native of Italy, and remarkable for its swift running.

X. SCOLOPAX.

Characters. BILL somewhat taper, obtuse, longer than the head.

NOSTRILS linear.

FACE clothed.

FEET four-toed; the hind toe resting upon many joints.

This genus contains several curlews, the whimbrels, the snipes, the woodcocks, the godwits, the red-shanks, the green-shanks, and the yellow-shanks; which form in all forty-six species.

XI. TRINGA.

Characters. BILL somewhat taper, of the length of the head.

NOSTRILS linear.

TONGUE slender.

FEET four-toed; the hind one consisting of a single joint, and raised from the ground.

This genus contains the lapwings, the sandpipers, the gambets, the purres, the dotterels, the knots, and the phalaropes; amounting in all to forty-one species. These birds run on the plains and the shores, scarce resting on their hind-toe; whereas those of the preceding genus rest on all their four toes, and wade in the marshes.

XII. CHARADRIUS.

Characters. BILL somewhat taper, obtuse.
 NOSTRILS linear.
 FEET cursory, three-toed.

This genus contains the plovers, ranged in thirty species.

XIII. RECURVIROSTRA.

Characters. BILL flat and depressed, awl-shaped, curved back, sharpened, flexible at the tip.
 FEET palmated, four-toed; the hind-toe very short, and placed very high.
 NOSTRILS narrow, pervious.
 TONGUE short.

This genus contains the avocets, which form only three species.

XIV. HEMATOPUS.

Characters. BILL compressed; the tip of an equal wedge-shape.
 NOSTRILS linear.
 TONGUE a third shorter than the bill.
 FEET cursory, three-toed, cloven.

This genus contains only a single species, the oyster-catcher.—The name derived from *αἷμα* blood, and *πύς* the foot.

XV. GLAREOLA.

Characters. BILL strong, short, straight, hooked at the tip.
 NOSTRILS at the base of the bill, linear, oblique.
 GAP wide.
 FEET four-toed; the toes long, slender, connected to each other at the base by a membrane.
 TAIL forked, with twelve quills.

This

This genus contains the pratincoles, which form three species and as many varieties.—The name formed from *glarea*, gravel.

XVI. FULICA.

Characters. BILL convex; the upper mandible vaulted at its margin, over the under, which swells behind its tip.

NOSTRILS oblong.

FRONT bald.

FEET four-toed, somewhat pinnated.

This genus contains twenty-five species, ranged in two subdivisions; those with *cloven feet*, corresponding to the gallinules, and those with *pinnated feet*, corresponding to the coots: the former amount to eighteen species, the latter to seven. These birds inhabit the water, and live upon worms, insects, and small fish: in the compressed form of their body, they resemble the rails; their bill is thick, their tail and wings short.

XVII. VAGINALIS.

Characters. BILL strong, thick, conically-convex, compressed; the upper mandible covered by a horny sheath notched and jagged.

NOSTRILS small, conspicuous before the sheath.

TONGUE taper above, flattened below, sharpened at the tip.

FACE naked, covered with papillæ.

WINGS strengthened under the flexure, by an obtuse knot.

FEET strong, cursory, naked a little way above the knees; the toes rough below; the nails furrowed.

Only

This

Only one species has hitherto been discovered, the sheathbill, a native of New Zealand.—The name derived from *vagina*, a sheath.

XVIII. PARRA.

Characters. BILL somewhat taper, somewhat obtuse.
NOSTRILS oval, placed in the middle of the bill.
FRONT carunculated; the caruncles parted into lobes.
BASTARD WINGS spinous.

This genus contains the jacanas, and several of the sandpipers; the number of species is fifteen.

XIX. RALLUS.

Characters. BILL thicker at the base, compressed, attenuated on the back near the tip, equal and sharp.
NOSTRILS oval.
FEET four-toed, cloven.
BODY compressed.

This genus contains the rails, which are comprized in thirty-one species. They are remarkable for the slight inflection of their bill, their small nostrils, their rough tongue, and their very short tail.

XX. PSOPHIA.

Characters. BILL of a form between the cone and cylinder, convex, somewhat acute; the upper mandible the longer.
NOSTRILS oval and broad.
TONGUE cartilaginous, flattened, fringed at the tip.
FEET four-toed and cloven.

This

This genus contains only two species, the agamis or trumpeters; the one a native of South America and the West Indies, the other a native of Africa.

The Third Order, that of the GALLINÆ, comprehends ten Genera: They are—

I. OTIS.

Characters. BILL somewhat convex.
NOSTRILS oval, pervious.
TONGUE bifid, sharp.
FEET curfory, three-toed, legs tall, naked above the thighs.

This genus contains the bustards; of which there are nine species.

II. STRUTHIO.

Characters. BILL somewhat conical.
NOSTRILS oval.
WINGS uselefs for flying.
FEET curfory.

This genus contains only three species, viz. the ostrich, the cassowary, and the *nandaguaca*.

III. DIDUS.

Characters. BILL straitened in the middle by two transverse wrinkles; the tip of each mandible inflected.
NOSTRILS oblique, near the margin of the middle of the bill.
FACE naked beyond the eyes.
FEET short, thick, cloven.
WINGS uselefs for flying.
TAIL wanting.

This genus contains the dodos, which form three species.

IV. PAVO.

IV. PAVO.

- Characters.* HEAD crested.
BILL convex, strong:
NOSTRILS broad.
QUILLS of the rump elongated, broad, expansible, spangled with eyes.

This genus contains the peacocks, which form four species.

V. MELEAGRIS.

- Characters.* BILL short and strong.
HEAD covered with spongy caruncles.
THROAT, at its upper part, furnished with a longitudinal membranaceous caruncle.
TAIL broad and expansible.

This genus contains the turkey, of which only one species has yet been discovered.

VI. PENELOPE.

- Characters.* BILL naked at the base.
HEAD covered with feathers.
THROAT naked at its upper part.
TAIL consisting of twelve quills.

This genus contains six species of curassos.

VII. CRAX.

- Characters.* BILL strong and thick, covered at the base with a cere in each mandible, or swelled.
NOSTRILS small, placed in the cere.
FEATHERS that cover the head.
TAIL large and straight.

This genus contains five other species of curassos.

VIII. PHA-

VIII. PHASIANUS.

Characters. BILL short and strong.
 CHEEKS smoothed, with naked skin.
 FEET, for the most part, spurred.

This genus contains not only the pheasants, which form nine species and five varieties, but also the cock, which includes fourteen varieties.

IX. NUMIDA.

Characters. BILL strong and short, furnished at the base with a carunculated cere receiving the nostrils.
 HEAD horned, the neck compressed and coloured.
 TAIL short, bending down.
 BODY speckled.

This genus contains the Guinea-hens, or pintadoes, of which there are three species.

X. TETRAO.

Characters. SPOT near the eyes naked, or papillous, or sometimes covered with feathers.

This genus includes three subdivisions: those with a naked spot above the eyes, and their feet shaggy; comprehending the grouse and ptarmigans: those with a papillous skin about the eyes, and with naked feet; comprehending the partridges and quails: and those with the space about the eyes covered thinly with feathers, and their feet imperfect; comprehending the tinamous. There are sixty-six species in all. In this genus, the young, for the most part, follow their mother the instant after they are hatched: the

the flesh, and even the eggs, are well-tasted. The grouse and ptarmigans, the partridges, and the quails, have a convex bill; the two first are destined to inhabit the coldest countries, their nostrils are small and concealed among feathers; their tongue is sharp at the tip; their legs are strong, and their tail is long: the partridges and quails are fitted for mild or warm climates; they are smaller-sized; their tail is shorter, and their nostrils are covered with an excrescence: the quails have a longer bill than the partridges. The tinamous are peculiar to Guiana, and resemble the pheasant in their habits; their bill is long, and blunt at the tip; their nostrils are placed in the middle with a very wide gap; their throat is sprinkled with feathers; their tail is very short; their hind-toe curtailed, and useless for running.

The Sixth Order, that of the PASSERES, comprehends the seventeen remaining Genera. These are ranged in four nearly equal divisions: the *thick-bills*, the *curved-bills*, the *notched-bills*, and the *simple-bills*.

I. COLUMBA.

Characters. BILL straight, sinking at the tip.
 NOSTRILS oblong, half-covered with a soft swelling membrane.
 TONGUE entire.

This

This extensive genus includes the turtles and pigeons, which amount to seventy-one species, besides numerous varieties. These birds are remarkable for their delicate bill, and short legs; their toes are generally red, and divided to the origin. They inhabit only the temperate and hot regions; they are monogamous, and display tenderness and sensibility in their courtships, and in the education of their young.

II. ALAUDA.

Characters. BILL, cylindrical - awl-shaped, straight, and stretching right forwards: the mandibles equal, and parted asunder at the base.

TONGUE bifid.

HIND NAIL rather straight, longer than the toe.

This genus includes the larks, of which there are thirty-three species.

III. STURNUS.

Characters. BILL awl-shaped, depressed at the corners, somewhat blunt: upper mandible very entire, the margins rather open.

NOSTRILS marginated above.

TONGUE notched, sharp.

This genus contains the staves, which form seventeen species.

IV. TURDUS.

Characters. BILL slender, knife-shaped: upper mandible depressed at the tip, and notched.

NOSTRILS

NOSTRILS naked, half covered above with a little membrane.

CHAPS ciliated.

TONGUE jagged and notched.

This genus includes the thrushes and black-birds, which amount to one hundred and twenty-six species.

V. AMPELIS.

Characters. BILL straight, convex: upper mandible longer, somewhat bent inwards, and notched on both sides.

NOSTRILS beset with bristles.

TONGUE sharp, cartilaginous, bifid.

This genus includes the chatterers, of which one species inhabits Europe, and the remaining ten, the hotter parts of America.

VI. COLIUS.

Characters. BILL short, thick, convex above, plane below: upper mandible curved apart.

NOSTRILS small, generally covered with feathers at the base of the bill.

TONGUE fringed at the tip.

TAIL wedge-shaped, and long.

This genus includes the colies, ranged in five species, all natives of Africa.

VII. LOXIA.

Characters. BILL conically-bunched, at the base of the front rounded towards the head: under mandible inflected at its lateral margin.

NOSTRILS placed in the base of the bill, minute, and rounded.

TONGUE entire.

This

This genus includes the grosbeaks, the cross-bills, the wax-bills, and the bull-finches, in all ninety-two species.

VIII. EMBERIZA.

Characters. BILL conical.

MANDIBLES parting asunder at the base: the under hemmed by the inflected sides; the upper narrower.

This genus includes the buntings, which amount to seventy-five species.

IX. TANAGRA.

Characters. BILL, conical, sharpened, notched, somewhat triangular at the base, the tip sloping down.

This genus contains the tanagres, of which there are forty-six species, almost all of them natives of America.

X. FRINGILLA.

Characters. BILL conical, straight, sharpened.

This extensive and multifarious genus includes the finches, the canaries, the siskins, the linnets, and the sparrows, which amount in all to one hundred and eight species, exclusive of many varieties.

XI. PHYTOTOMA.

Characters. BILL conical, straight, serrated.

NOSTRILS oval.

TONGUE short, blunt.

Only one species, the *rara*, is known. It inhabits Chili, and is nearly of the size of a quail. It screams with a raucous interrupted voice, crops and tears up the tender plants, and makes destructive visits in gardens. It nestles in shady places on leafy trees, and lays white eggs, spotted with black.—The name formed from *φυλον*, a plant, and *τεμνω*, to cut.

XII. MUSCICAPA.

Characters. BILL somewhat triangular, notched on both sides, curved inwards at the tip; *whiskers* expanding towards the chaps.

NOSTRILS roundish.

This genus includes the fly-catchers, which amount to ninety-two species, and are generally natives of the hot climates.

XIII. MOTACILLA.

Characters. BILL awl-shaped, straight; the mandibles somewhat equal.

NOSTRILS ovalish.

TONGUE jagged and notched.

This genus includes a prodigious variety of birds; the warblers, the petty-chaps, the nightingale, the wag-tails, the white-ears, the whinchats, the stone-chats, the black-cap, the redstart, the gray-start, the red-breast, the wrens; the number of species being no less than one hundred and seventy-four.

†

XIV. PL-

XIV. PIPRA.

- Characters.* BILL shorter than the head, stout, hard, somewhat triangular at the base, very entire, curved inwards at the tip.
 NOSTRILS, in most of the species, bare.
 FEET gressory.
 TAIL short.

This genus includes the manakins, of which there are twenty-six species, all natives of the hotter parts of America.

XV. PARUS.

- Characters.* BILL very entire, narrow, somewhat compressed, stout, hard, sharpened, beset at the base with bristles.
 TONGUE truncated, terminated with bristles.
 TOES disjoined to their origin, the hind one large and strong.

This genus includes the titmice, which form thirty-two species. These birds are remarkably prolific, laying eighteen or twenty eggs at each hatch. They feed on seeds, fruits, insects, and even flesh, particularly the brains of other birds: they are petulant, restless, quarrelsome, and their voice is generally disagreeable.

XVI. HIRUNDO.

- Characters.* BILL very small, curved inwards, awl-shaped, depressed at the base, broad.
 GAPE wider than the head.
 TONGUE short, broad, cleft.
 WINGS long.
 TAIL, in most of the species, forked.

This genus contains the swallows and martins, ranged in thirty-seven species.

XVII. CAPRIMULGUS.

Characters. BILL moderately curved inwards, very small, awl-shaped, depressed at the base.
 WHISKERS, in a row at the mouth.
 GAPE very wide.
 EARS very wide.
 TONGUE sharp, very entire.
 TAIL not forked; its quills ten in number.
 FEET short; the margin of the mid-toe broad and serrated.

This genus includes the goatsuckers, forming fifteen species, all of them, except one, natives of America. These birds appear only in the dusk, and make a loud dull noise. They drop two eggs on the naked ground.

IN his late work, the *Index Ornithologicus*, Mr. Latham has, upon the whole, closely followed Linnæus and Gmelin: I shall only mark the instances where he has ventured to differ from them.

In the land-birds he has added two new Orders, the *Columbæ*, and the *Struthionæ*; in the water-fowl, he has rejected the Order of the *Anseres*, and revived the old division into the *Pinnatipedes* and the *Palmipedes*. So that he follows Mr. Pennant in admitting nine Orders: He thus delineates these:—

COLUMBÆ.

COLUMBÆ.

BILL somewhat straight, swelling at the base.

FEET ambulatory, short, the nails simple.

FOOD from grain, seeds, and fruits, by swallowing.

NEST artless, in trees and holes; two eggs; the young feed from the mother's craw. Monogamous.

STRUTHIONES.

BODY vast, ponderous, hardly eatable.

WINGS small, useless for flying, or wanting.

FEET curfory, strong, with various toes.

FOOD grain and vegetables.

NEST on the ground. Monogamous.

The Order of the *Columbæ* contains only the pigeons: that of the *Struthiones* comprehends the ostrich, the cassowary, the dodo, and the touyou.

PINNATIPEDES.

BILL, BODY, and FOOD, as in the GRALLÆ of Lin-
næus.

FEET wading, thighs half naked, toes cleft, pinnated their whole length.

NEST large, formed of leaves and grass, in marshes. Mo-
nogamous.

This Order contains the phalaropes, the coots, and the grebes.

PALMIPEDES, admit of a sub-division:

1. Those with long feet.

BODY somewhat depressed, conical, the flesh of the young birds well-tasted.

2 E 3

FEET

UMBÆ.

FEET very long, wading, greatest part of the thighs naked, toes semi-palmated by a membrane.

FOOD in the water, from small fish and various insects.

NEST on land. Monogamous.

2. Those with short feet.

BILL smooth, covered with an epidermis, enlarged at the tip.

FEET fitted for swimming, the toes palmated with a membrane, the legs compressed and short.

BODY fat; the skin adhesive, the feathers valuable: rankish.

NEST oftenest on land. The mother seldom feeds the young. Generally polygamous,

The first sub-division includes the avocets, the courier, and the flamingos. The second sub-division comprehends the albatrosses, the auks, the guillemots, the divers, the skimmer, the terns, the gulls, the petrels, the merganser, the swans and geese, ducks and teals, &c. the penguins, the pelicans, including the cormorant, the shags, the boobies, and the gannets, the tropic-birds, and the darter.

Mr. Latham has also made several alterations in the Genera. He has removed the genus *Lanius* from the order of the ACCIPITRES to that of the PICÆ: and in this order he has also erected the motmot, *Galbula*, into a genus under the name *Momotus*, and the jacamar under that; and he has added the *Scythrops*, a bird lately brought from Botany Bay; it is thus characterized: *Bill* large, convex, knife-shaped, hooked

at the tip; *nostrils* rounded, naked, placed at the base of the bill; *tongue* cartilaginous, bifid at the tip; *feet* scansory. It is about the size of a raven, being twenty-seven inches long.—He has changed the name *Glaucopis* of a new genus into *Callæas*.

In the order of the PASSERES, he has split the numerous genus *Motacilla* into two, the *Motacilla* and the *Sylvia*; the former containing only the wagtails, and the latter comprehending the nightingale, the warblers, the chats, and the wrens. The genus *Sylvia* is thus characterized: *Bill* awl-shaped, straight, slender, the mandibles somewhat equal; *nostrils* ovalish, rather depressed; *outer toe* connected to the mid-one at the base; *tail* middling-sized.

A P P E N D I X, II,

BY THE TRANSLATOR.

BIRDS omitted by the COMTE DE BUFFON,
or since discovered.

THE late voyages round the world, the expeditions to New South Wales, and the journeys performed by Gmelin, Pallas, and Jacquin, have introduced several new species of birds, which require to be particularly noticed. Cabinets of Natural History furnish single specimens of many others, which, though reckoned distinct species by systematic writers, are probably varieties only. The bare mention of these will suffice; or at most, some general hint of their peculiarities.—In forming this catalogue, I have followed the arrangement of Mr. Latham.

In the Genus VULTUR.

1. The Bearded Vulture, *Vultur Barbatus*; from Barbary.
2. The Arabian Vulture, *Vultur Monachus*.
3. The Black Vulture, *Vultur Niger*. It is frequent

frequent in Egypt: its quills are brown, and its feet feathered.

4. The Pondicherry Vulture, *Vultur Ponticerianus*. It is black, its head and neck rather naked and carnation, a red fleshy caruncle on the sides of the neck. It is of the size of a goose.
5. The Angola Vulture, *Vultur Angolensis*. It is white, and of the same size with the preceding.
6. The Indian Vulture, *Vultur Indicus*. It is brown, its upper side marked with pale stripes; its head and neck naked and rufous; its quills black. It inhabits the coasts of India, and is exceedingly voracious.
7. The Gingi Vulture, *Vultur Gingianus*. It is white, its wing-quills black, its legs and bill gray. It is known in India by the name of *wild turkey*.
8. The Tawny Vulture, *Vultur Ambustus*; from the Falkland Islands.
9. The Plaintive Vulture, *Vultur Plancus*; from Tierra del Fuego.
10. The Cheriway Vulture, *Vultur Cheriway*; from the island Aruba.

In the Genus FALCO.

1. The Oronooko Eagle, *Falco Harpyia*. Its head is crested by the production of the feathers; the body variegated, and white below.

below. It is said to be as large as a ram,
and to cleave a man's skull at one stroke.

It inhabits the hotter parts of America.

2. The White-bellied Eagle, *Falco Leucogaster*.
3. The Japanese Hawk, *Falco Japonicus*.
4. The Fierce Eagle, *Falco Ferox*; from Astracan.
5. The Black-cheeked Eagle, *Falco Americanus*; from North America. It is of the bulk of the Ring-tail Eagle.
6. The Cheela Falcon, *Falco Cheela*; from India.
7. The Asiatic Falcon, *Falco Asiaticus*; from China.
8. The Spotted Eagle, *Falco Maculatus*; a native of Europe.
9. The Statenland Eagle, *Falco Australis*.
10. The Chilian Falcon, *Falco Tharus*. Its cere and legs are yellow, its body blackish white, its top crested. It breeds on lofty trees, laying five eggs.
11. The Black-backed Eagle, *Falco Melanonotus*.
12. The White-crowned Eagle, *Falco Leucorhynchus*.
13. The Russian Eagle, *Falco Mogilnik*; from the deserts on the Tanais.
14. The Caracca Falcon, *Falco Cristatus*.
15. The Leverian Falcon, *Falco Leverianus*.
16. The Rough-legged Falcon, *Falco Lagopus*; from the North of Europe and of America.

17. The

17. The Booted Falcon, *Falco Pennatus*.
18. The Javan Falcon, *Falco Maritimus*.
19. The Arabian Kite, *Falco Forſkalii*. Inhabits Egypt in winter.
20. The Austrian Kite, *Falco Auſtriacus*.
21. The Equinoctial Eagle, *Falco Æquinoctialis*; from Cayenne.
22. The Oriental Hawk, *Falco Orientalis*; from Japan.
23. The Speckled Buzzard, *Falco Variiegatus*; from North America.
24. The Sclavonian Falcon, *Falco Marginatus*.
25. The Barred-breasted Buzzard, *Falco Lineatus*; from North America.
26. The Collared Falcon, *Falco Ruſticulus*; from Sweden and Siberia.
27. The Long-tailed Falcon, *Falco Macrourus*; from Ruſſia.
28. The Northern Falcon, *Falco Hyemalis*; from New York.
29. The Rhomboidal Falcon, *Falco Rhombeus*; from the Ganges.
30. The Black-necked Falcon, *Falco Nigricollis*; from Cayenne.
31. The White-necked Falcon, *Falco Albicollis*; from Cayenne.
32. The Rufous-headed Falcon, *Falco Meridionalis*; from Cayenne.
33. The Black and White Falcon, *Falco Melanoleucos*. Its legs are yellow, its body white; its head, neck, back, axillæ, and wing-

wing-quills black. It inhabits Ceylon, and is called *Kaloe Koeroelgoya*. Its length is sixteen inches, its weight ten ounces.

34. The Surinam Falcon, *Falco Sufflator*.
35. The Laughing Falcon, *Falco Caccinnans*; from South America.
36. The Streaked Falcon, *Falco Melanops*; from Cayenne.
37. The Notched Falcon, *Falco Bidentatus*; from Cayenne.
38. The Marsh Hawk, *Falco Uliginosus*; from America.
39. The Behree Falcon, *Falco Calidus*; from India.
40. The Plumbeous Falcon, *Falco Plumbeus*; from Cayenne.
41. The Bohemian Falcon, *Falco Bobemicus*.
42. The Brown Hawk, *Falco Badius*; from Ceylon.
43. The Dusky Falcon, *Falco Obscurus*; from North America.
44. The Guiana Falcon, *Falco Superciliosus*.
45. The Ingrian Falcon, *Falco Vespertinus*. Its cere, its legs, and its eye-lids, are yellow; its vent and its thighs ferruginous. It flies in the dusk of the evening, and preys chiefly on quails. It nestles on the summits of trees. It is found throughout Russia and Siberia.
46. The Criard Falcon, *Falco Vociferus*; from India.
47. The Siberian Falcon, *Falco Regulus*.

In

In the Genus of the STRIX.

1. The Virginian Eared Owl, *Strix Virginianus*.
2. The Ceylonefe Eared Owl, *Strix Ceylonensis*.
3. The Chinese Eared Owl, *Strix Sinensis*.
4. The Coromandel Eared Owl, *Strix Coromanda*.
5. The Scandinavian Eared Owl, *Strix Scandiniaca*. It lives in the mountains of Lapland, and is as large as a peacock.
6. The Mottled Owl, *Strix Nævia*; from New York.
7. The Indian Eared Owl, *Strix Bakkamuna*; from Ceylon.
8. The Siberian Eared Owl, *Strix Pulchella*.
9. The Wapachtu Owl, *Strix Wapachtu*; from Hudson's Bay.
10. The Cinereous Owl, *Strix Cineræa*; from Hudson's Bay. It flies in pairs.
11. The Swedish Owl, *Strix Tengmalmi*.
12. The Acadian Owl, *Strix Acadica*; from North America.
13. The New Zealand Owl, *Strix Fukuæ*.

In the Genus LANIUS.

1. The Chesnut-backed Shrike, *Lanius Castaneus*.
2. The Rufous-tailed Shrike, *Lanius Phænicurus*.
3. The Surinam Shrike, *Lanius Atricapillus*.

4. The

4. The Magpie Shrike, *Lanius Leveianus*; from South America.
5. The Black Shrike, *Lanius Niger*; from Jamaica.
6. The Chinese Shrike, *Lanius Schach*.
7. The Pacific Shrike, *Lanius Pacificus*; from the islands in the Pacific Ocean.
8. The Black-headed Shrike, *Lanius Melanocephalus*; from the Sandwich islands.
9. The Northern Shrike, *Lanius Septentrionalis*; from North America.
10. The Black-capped Shrike, *Lanius Pileatus*; from Cayenne.
11. The Short-tailed Shrike, *Lanius Brachyurus*; from Hungary.
12. The Ferruginous-bellied Shrike, *Lanius Ferrugineus*; from the Cape of Good Hope.
13. The Tabuan Shrike, *Lanius Tabuensis*; from the island of Tongataboo.
14. The White-shouldered Shrike, *Lanius Varius*; from Brazil.
15. The Panayan Shrike, *Lanius Panayensis*.
16. The Red Shrike, *Lanius Ruber*; from Surinam.
17. The Orange Shrike, *Lanius Aurantius*; from Cayenne.
18. The Nootka Shrike, *Lanius Natka*.
19. The Boulboul Shrike, *Lanius Boulboul*; from India.
20. The Dusky Shrike, *Lanius Obscurus*.

In

In the Genus PSITTACUS.

1. The Obscure Parrot, *Psittacus Obscurus*; from Africa.
2. The Noble Parrot, *Psittacus Nobilis*. It is long-tailed and green; its cheeks naked; its shoulders scarlet. It inhabits Surinam, and is of the size of the turtle.
3. The Javan Parrakeet, *Psittacus Javanicus*. It is long-tailed and green; its head variegated with blue and bright yellow; its temples black; its throat and breast red; a bright yellow spot on its coverts.
4. The Tabuan Parrot, *Psittacus Tabuensis*; from Tongataboo.
5. The Beautiful Lory, *Psittacus Elegans*. It is long-tailed and brown; its feathers edged with red and green; its head, its neck, and the under side of its body, scarlet; its shoulders, and the margins of its quills, edged with blue. It inhabits the Moluccas.
6. The Variegated Lory, *Psittacus Variegatus*; from India.
7. The Pennantian Parrot, *Psittacus Pennantii*. It is long-tailed and scarlet; the fore part of its back black, waved with scarlet; the sides of the body, and the throat, blue; a white spot on the inside of the wing-quills. It is found in New South Wales.

8. The

In

8. The Black Lory, *Psittacus Novæ Guineæ*.
9. The Crimson-vented Parrot, *Psittacus Erythropygius*; from Asia.
10. The Chilian Parrot, *Psittacus Jaguilma*.
It is long-tailed and green; its wing-quills tipped with brown, its orbits fulvous. It lives in numerous flocks during summer on the Cordilleras, and crops herbs and the buds of trees.
11. The Varied-winged Parrot, *Psittacus Marginatus*; from the isle of Luçon.
12. The Scaly-breasted Parrakeet, *Psittacus Squamosus*; from Cayenne.
13. The Horned Parrot, *Psittacus Bifetis*; from New Caledonia.
14. The Caledonian Parrot, *Psittacus Caledonicus*.
15. The Red-rumped Parrot, *Psittacus Zealandicus*; from New Zealand.
16. The Crested Parrakeet, *Psittacus Novæ Hollandiæ*; from New Holland.
17. The Society Parrot, *Psittacus Ulietanus*; from Ulietea.
18. The White-collared Parrot, *Psittacus Multicolor*; from India.
19. The Lineated Parrot, *Psittacus Lineatus*.
20. The Pacific Parrot, *Psittacus Pacificus*; from Otaheite.
21. The Peregrine Parrakeet, *Psittacus Peregrinus*; from the islands in the South Sea.
22. The

22. The Palm Parrot, *Psittacus Palmarum*;
from the island of Tanna.
23. The Blue-crested Parrakeet, *Psittacus Piplans*;
from the Sandwich islands. It is
of the size of a lark, and beautiful: it
has a piping voice.
24. The New South Wales Parrakeet, *Psittacus
Puffinus*.
25. The Pygmy Parrakeet, *Psittacus Pygmaeus*;
from the islands in the South Sea.
26. The Crowned Cockatoo, *Psittacus Corona-
tus*; from Guiana.
27. The Bankian Cockatoo, *Psittacus Bankii*;
from New Holland.
28. The New South Wales Cockatoo, *Psittacus
Galeritus*.
29. The Southern Brown Parrot, *Psittacus Me-
ridionalis*; from New Holland.
30. The South American Parrot, *Psittacus Frin-
gillaceus*.
31. The Robust Parrot, *Psittacus Robustus*.
32. The Cochinchina Parrot, *Psittacus Cochinchinensis*.
33. The Yellow-breasted Lory, *Psittacus Guineensis*;
from Guinea.
34. The Grilled Parrot, *Psittacus Nasutus*;
from China.
35. The White-crowned Parrot, *Psittacus Albi-
frons*.
36. The New Guinea Green Parrot, *Psittacus
Viridis*.

37. The Eastern Parrot, *Psittacus Orientalis* ;
from India.
38. The Blue-cheeked Parrot, *Psittacus Adscitus*.
39. The Amber Parrot, *Psittacus Batavensis* ;
from Batavia.
40. The Crimson-winged Parrot, *Psittacus*
Erythropterus ; from New South Wales.
41. The Purple-tailed Parrakeet, *Psittacus Pur-*
puratus ; from Cayenne.

In the Genus BUCEROS.

1. The White Hornbill, *Buceros Albus*. Caught
near the island of Tinian.
2. The New Holland Hornbill, *Buceros Ori-*
entalis.
3. The Gray Hornbill, *Buceros Griseus* ; from
New Holland.

In the Genus CORVUS.

1. The South Sea Raven, *Corvus Australis*.
2. The New Caledonian Crow, *Corvus Cale-*
donicus.
3. The Pacific Crow, *Corvus Pacificus* ; from
the islands in the Pacific Ocean.
4. The Tropic Raven, *Corvus Tropicus* ; from
the island Owhyhee.
5. Steller's Crow, *Corvus Stelleri* ; from Nootka
Sound. It bears a sort of crest.
6. The White-eared Jay, *Corvus Auritus* ;
from China.
7. The

7. The Purple-headed Jay, *Corvus Purpurascens*; from China.
8. The Macao Crow, *Corvus Sinensis*.
9. The Rufous Crow, *Corvus Rufus*; from China.
10. The African Crow, *Corvus Africanus*. It is brown and somewhat crested.

In the Genus CORACIAS.

1. The Indian Roller, *Coracias Indica*; from Ceylon.
2. The Cape Roller, *Coracia Caffra*.
3. The Ultramarine Roller, *Coracias Cyanea*.
4. The Fairy Roller, *Coracias Puella*; from India.
5. The Blue-striped Roller, *Coracias Striata*; from New Caledonia.
6. The Gray-tailed Roller, *Coracias Vagabunda*; from India.
7. The Docile Roller, *Coracias Docilis*; from the South of Asia.
8. The Black Roller, *Coracias Nigra*.
9. The African Roller, *Coracias Africa*.
10. The Black-headed Roller, *Coracias Melanoccephala*; from China.
11. The Obstreperous Roller, *Coracias Strepera*. It is black; the spot on its wings, its vent, and the base and tip of its tail, white. It is very numerous in Norfolk island: is a silly bird, noisy and restless during the night.

In the Genus *ORIOLOUS*.

1. The Rice Oriole, *Oriolus Orizyvorus*. It is black; its head, neck, and breast, of a glossy purple. It inhabits Cayenne.
2. The Rusty Oriole, *Oriolus Ferrugineus*; from New York.
3. The Red Oriole, *Oriolus Ruber*; from the island Panay.
4. The Antigua Yellow Oriole, *Oriolus Flavius*; from Panay and South America.
5. The Oonalaskan Oriole, *Oriolus Aoonalashkenfis*.
6. The Sharp-tailed Oriole, *Oriolus Caudacutus*; from North America.

In the Genus *GRACULA*.

1. The Fetid Grackle, *Gracula Fœtida*. It is black; the outside of its wing-quills blueish; a naked bar on its neck: from North America.
2. The Boat-tailed Grackle, *Gracula Banta*. It is grayish; its shoulders blue; the outside of its wing-quills green. It inhabits the warmer parts of America and the West Indies.
3. The Egyptian Grackle, *Gracula Atthis*. It is blue-green; its belly ferruginous; its legs blood-coloured. It is of the size of a lark; it feeds on insects.

4. The

BIRDS OMITTED.

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4. The Long-billed Grakle, *Gracula Longirostra*; from Surinam.
5. The Daurian Grakle, *Gracula Sturnina*.
6. The Yellow-faced Grakle, *Oriolus Icterops*; from New Holland.

In the Genus PARADISEA.

1. The Gorget Bird of Paradise, *Paradisea Gularis*. Its length twenty-eight inches.
2. The White-winged Paradise Bird, *Paradisea Leucoptera*. Length twenty-five inches.
3. The White Paradise Bird, *Paradisea Alba*; from the Papuan islands.

In the Genus TROGON.

1. The Fasciated Curucui, *Trogon Fasciatus*; from Ceylon.
2. The Spotted Curucui, *Trogon Maculatus*; from Ceylon.
3. The Blue-cheeked Curucui, *Trogon Afiaticus*; from India.
4. The Blackish-spotted Curucui, *Trogon Indicus*; from India.

In the Genus BUCCO.

1. The Buff-faced Barbet, *Bucco Lathami*.
2. The Red-crowned Barbet, *Bucco Rubricapillus*; from Ceylon.
3. The Yellow-cheeked Barbet, *Bucco Zeylonicus*. It is green; its head and neck pale brown; the coverts of its wings

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spotted

4. The

spotted with white. It inhabits Ceylon: it sits on trees murmuring like the turtle; and is thence named by the natives *Kottorea*.

4. The White-breasted Barbet, *Bucco Fuscus*; from Cayenne: size of a lark.
5. The Blue Barbet, *Bucco Gerini*; from India.

In the Genus CUCULUS.

1. The Panayan Spotted Cuckoo, *Cuculus Panayus*.
2. The Eastern Black Cuckoo, *Cuculus Indicus*. Its tail is rounded; its body black; its wings and its tail-quills marked at the tip with three black cross lines. It inhabits India, and goes in flocks: it is said to sing delightfully: its flesh is delicate. Held in great veneration by the Mahometans. Its length sixteen inches.
3. The Crested Black Cuckoo, *Cuculus Serratus*; from the Cape of Good Hope.
4. The Shining Cuckoo, *Cuculus Lucidus*; from New Zealand.
5. The Punctated Cuckoo, *Cuculus Punctulatus*; from Cayenne.
6. The Red-headed Cuckoo, *Cuculus Pyrrhcephalus*. It inhabits the woods of Ceylon, and lives on fruits. The natives call it *Malkoba*. It is sixteen inches long, and weighs four ounces. Its body is black.

In

In the Genus PICUS.

1. The Buff-crowned Woodpecker, *Picus Melanoleucos*; from Surinam.
2. The Red-breasted Woodpecker, *Picus Ruber*; from Surinam.
3. The White-rumped Woodpecker, *Picus Obscurus*; from North America.
4. The Striped-bellied Woodpecker, *Picus Fasciatus*; from Otaheite.
5. The Red-winged Woodpecker, *Picus Miniatus*; from India.
6. The Malacca Woodpecker, *Picus Malaccensis*. Its tuft and shoulders are scarlet; its throat reddish-yellow; its tail black.
7. The Gold-winged Woodpecker, *Picus Caffer*; from the Cape of Good Hope.
8. The Crimson-breasted Woodpecker, *Picus Olivaceus*; from the Cape of Good Hope.
9. The Chilian Woodpecker, *Picus Pitius*. It is brown, with drops of white; its tail short. It has the appearance of a pigeon. It is said not to nestle in hollow trees, but on the banks of rivers and the sides of hills, and to lay four eggs. Its flesh is esteemed by the natives.

In the Genus GALBULA.

The White-billed Jacamar, *Galbula Albirostris*; from South America.

In the Genus *ALCEDO*.

1. The Egyptian Kingfisher, *Alcedo Ægyptia*.
It is long-tailed and brown, with ferruginous spots; its throat lighter ferruginous; its belly and thighs whitish, with ash-spots; its tail ashy. It is of the size of a crow.
2. The New Guinea Kingfisher, *Alcedo Novæ Guineæ*. It is black, spotted with white.
3. The Yellowish Kingfisher, *Alcedo Flavicans*.
4. The Sacred Kingfisher, *Alcedo Sacra*. It is blue green; below white; its eye-brows and a streak below its eyes ferruginous; its wing-quills and its tail blackish. It inhabits the Society Islands.
5. The Venerated Kingfisher, *Alcedo Venerata*.
It is brown variegated with green, below pale; a stripe above the eyes whitish green. It inhabits the Friendly Islands.
6. The Respected Kingfisher, *Alcedo Tuta*. It is long-tailed, green-olive, below white; a green-black collar; the eye-brows white. Found in Otaheite.
7. The Violet Kingfisher, *Alcedo Coromanda*; from Coromandel.
8. The Spotted Kingfisher, *Alcedo Inda*; from Guiana.
9. The Surinam Kingfisher, *Alcedo Surinamensis*. It is short-tailed and blue, and below rufous-white.
10. The

10. The Three-toed Kingfisher, *Alcedo Tridactyla*. It is short-tailed and small. Found in India.

In the Genus SITTA.

1. The Surinam Nuthatch, *Sitta Surinamensis*. It is chestnut-rufous, below rusty white; its wings black; its coverts spotted with white; its tail black tipped with white. It is the smallest in the genus, being only three inches and a half long.
2. The Cape Nuthatch, *Sitta Caffra*. Above varied with yellow and black; below bright yellow; its legs black. It is eight inches and a half long.
3. The Long-billed Nuthatch, *Sitta Longirostris*. It is blueish, below pale rusty; its primary wing-quills brown at the tip; its straps black. From Batavia. Length eight inches.
4. The Green Nuthatch, *Sitta Chloris*. Its body is green above, bright white below; tail black, the extreme tip yellowish. It inhabits the country about the Cape of Good Hope, and is there called *Akter Brunties*. Its length hardly exceeds three inches and a half.

In the Genus TODUS.

1. The Short-tailed Tody, *Todus Brachyurus*; from North America. It is black above, and white below.

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10. The

2. The Plumbeous Tody, *Todus Plumbeus*; from Surinam.
3. The Dusky Tody, *Todus Obscurus*. It is olive-brown, below light yellowish; its throat pale. It inhabits dead trees in the forests of North America, and sings pleasantly.
4. The Ferruginous-bellied Tody, *Todus Ferrugineus*; from North America.
5. The Broad-billed Tody, *Todus Rostratus*.
6. The Yellow-bellied Tody, *Todus Flavigaster*; from New Holland.

In the Genus MEROPS.

1. The Coromandel Bee-eater, *Merops Coromandus*.
2. The Surinam Bee-eater, *Merops Surinamensis*.
3. The Poe Bee-eater, *Merops Cinnamatus*. It is of a dark glossy green; a tuft on either side of the throat, and a stripe on the wings, white. It inhabits New Zealand, where it is held in veneration by the natives. It has an agreeable song, and its flesh is well tasted.
4. The Yellow-tufted Bee-eater, *Merops Fasciculatus*. The people of the Sandwich Islands, where it is found, weave its yellow feathers into various sorts of dresses.
5. The New Holland Bee-eater, *Merops Carunculatus*. It has fleshy wattles.

6. The Horned Bee-eater, *Merops Corniculatus*; from New Holland.

In the Genus UPUPA.

1. The Red-billed Promerops, *Upupa Erythrorhynchos*.
2. The Blue Promerops, *Upupa Indica*; from India.

In the Genus CERTHIA.

1. The Green Creeper, *Certhia Viridis*; from Carniola.
2. The Great Hook-billed Creeper, or Hoo-hoo, *Certhia Pacifica*; from the Sandwich Islands.
3. The Hook-billed Green Creeper, *Certhia Obscura*. It is very frequent in the Sandwich Islands.
4. The Hook-billed Red Creeper, *Certhia Vestitiaria*. Common in the Sandwich Islands: its red feathers, with the olive ones of the preceding species, are preserved by the natives for making their robes of ceremony.
5. The Sickle-billed Creeper, *Certhia Falcata*.
6. The Fulvous Creeper, *Certhia Fulva*; from South America.
7. The Cinereous Creeper, *Certhia Cinerea*; from the Cape of Good Hope.
8. The Crimson Creeper, *Certhia Sanguinea*; from the Sandwich Islands.

9. The

6. The

9. The Brown Creeper, *Certhia Fusca*; from the Southern Archipelago.
10. The Waved Creeper, *Certhia Undulata*.
11. The Wattled Creeper, *Certhia Carunculata*; from the island Tongataboo. It sings sweetly.
12. The Yellow-cheeked Creeper, *Certhia Ocrochlora*; from Surinam.
13. The Blue-throated Creeper, *Certhia Cyano-gastra*; from Cayenne.
14. The Orange-breasted Creeper, *Certhia Aurantia*; from Africa.
15. Mocking Creeper, *Certhia Sannio*; from New Zealand. It feeds on the honey of flowers.
16. The New Holland Creeper, *Certhia Novæ Hollandiæ*. It is black, and striped below with white.
17. The Brownish Creeper, *Certhia Incana*; from New Caledonia.
18. The Olive Creeper, *Certhia Peregrina*.
19. The Bracelet Creeper, *Certhia Armillata*; from Surinam.
20. The Cinnamon Creeper, *Certhia Cinnamomea*.
21. The Ash-bellied Creeper, *Certhia Verticalis*; from Africa.
22. The Indigo Creeper, *Certhia Parietum*; from India.
23. The Yellow-bellied Creeper, *Certhia Lepida*; from India.

24. Tha

24. The Orange-backed Creeper, *Certhia Cantillans*; from China. Only three inches long. Its song agreeable.
25. The Tufted Creeper, *Certhia Erythrorhynchus*; from India.
26. The Yellow-winged Creeper, *Certhia Chrysoptera*; from Bengal.
27. The Long-billed Creeper, *Certhia Longirostra*; from Bengal.
28. The Barred-tail Creeper, *Certhia Grisea*; from China.

In the Genus TROCHILUS.

1. The Ash-bellied Colibri, *Trochilus Cinereus*. Length six inches.
2. The Harlequin Colibri, *Trochilus Multicolor*. Length four inches and a half.
3. The Yellow-fronted Colibri, *Trochilus Flavifrons*.
4. The Purple-crowned Colibri, *Trochilus Torquatus*.
5. The Orange-headed Colibri, *Trochilus Auranitius*.
6. The Little Colibri, *Trochilus Exilis*. Length an inch and a half: weight scarce fifty grains.
7. The Dusky-crowned Fly-bird, *Trochilus Obscurus*. Length four inches and a half.
8. The Black and Blue Fly-bird, *Trochilus Bancrofti*. Length four inches. From the West Indies.

9. The

9. The Ruff-necked Fly-bird, *Trochilus Col-laris*. Length three inches and three quarters. From Nootka Sound.
10. The Blue-headed Fly-bird, *Trochilus Cyano-cephalus*. Size of a walnut. From Chili.
11. The Patch-necked Fly-bird, *Trochilus Ma-culatus*.

In the Genus STURNUS.

1. The Wattled Stare, *Sturnus Carunculatus*; from New Zealand. Length ten inches. Has a weak piping voice.
2. The Cock's-comb Stare, *Sturnus Gallina-ceus*; from the Cape of Good Hope. Length six inches.
3. The Silk Stare, *Sturnus Sericeus*; from China. Length eight inches.
4. The Green Stare, *Sturnus Viridis*; from China.
5. The Brown Stare, *Sturnus Olivaceus*; from China.
6. The Alpine Stare, *Sturnus Moritanicus*; from Persia. It is cinereous and spotted. It breeds in the holes of rocks.
7. The Chilian Stare, *Sturnus Loyca*. It is spotted with brown and white; its breast scarlet. It makes its nest carelessly in holes in the ground; is easily tamed, and is venerated by the natives.
8. The Daurian Stare, *Sturnus Dauricus*.

In the Genus TURDUS.

1. The Jamaica Thrush, *Turdus Jamaicensis*.
It is ash-brown, and white below.
2. The Oonalaschka Thrush, *Turdus Aoonalaskæ*.
3. The Ruby-throat, *Turdus Calliope*. It is brown ferruginous, below yellowish-white; its throat cinnabar, edged with black and white; its straps black; its eye-brows white. Inhabits the wilds of Siberia, and pours its sweet note from the highest sprays.
4. The Tawny Thrush, *Turdus Mustelinus*; from North America.
5. The Yellow-backed Thrush, *Turdus Striatus*; from Surinam.
6. The Variegated Thrush, *Turdus Variegatus*; from Surinam.
7. The Pagoda Thrush, *Turdus Pagodarum*; from India. It is crested and gray.
8. The Rufous-tailed Thrush, *Turdus Ruficaudus*; from the Cape of Good Hope.
9. The Dark Thrush, *Turdus Obscurus*. It inhabits the forests in the southern parts of Siberia, and has a ringing voice.
10. The Red-necked Thrush, *Turdus Ruficollis*. Inhabits the summits of Dauria.
11. The White-browed Thrush, *Turdus Sibiricus*; from the north of Russia and Siberia.

12. The

12. The Pale Thrush, *Turdus Pallidus*; from Siberia.
13. The Thick-billed Thrush, *Turdus Crassirostris*; from New Zealand.
14. The Bay Thrush, *Turdus Ulietensis*; from the island of Ulietea.
15. The Crescent Thrush, *Turdus Arcuatus*; from China.
16. The New Holland Thrush, *Turdus Novæ Hollandiæ*.
17. The Black-faced Thrush, *Turdus Shanhu*. It inhabits the woods of China.
18. The Surat Thrush, *Turdus Suratensis*.
19. The Pacific Thrush, *Turdus Pacificus*.
20. The Sandwich Thrush, *Turdus Sandwichensis*.
21. The Yellow-bellied Thrush, *Turdus Brasiliensis*; from Brazil.
22. The White-chinned Thrush, *Turdus Americanus*; from America.
23. The Chilian Thrush, *Turdus Curæus*. It is glossy black; its bill somewhat streaked; its tail wedge-shaped. It is of the size of the blackbird; commonly breeds in holes: it is noisy and imitative, and has a fine song.
24. The Labrador Thrush, *Turdus Labradorus*.
25. The Persian Thrush, *Turdus Persicus*.
26. The White-tailed Thrush, *Turdus Leucurus*. Inhabits the south of Europe.
27. The

27. The Violet Thrush, *Turdus Violaceus*; from China.
28. The White-headed Thrush, *Turdus Leucocephalus*; from China.
29. The Songster Thrush, *Turdus Cantor*; from the Philippine Islands.
30. The Black-necked Thrush, *Turdus Nigricollis*; from China.
31. The Yellow-fronted Thrush, *Turdus Malabaricus*; from Malabar.
32. The Chanting Thrush, *Turdus Boubil*. It is brown, with a black stripe behind the ears. Inhabits China.
33. The Yellow Thrush, *Turdus Flavus*; from China.
34. The Orange-headed Thrush, *Turdus Citrinus*; from India.
35. The Green Thrush, *Turdus Vireescens*; from China.
36. The Gray Thrush, *Turdus Griseus*; from Coromandel.
37. The White-fronted Thrush, *Turdus Albigrons*; from New Zealand.
38. The Long-tailed Thrush, *Turdus Macrourus*; from Malabar.
39. The Yellow-crowned Thrush, *Turdus Ocbrocephalus*; from Ceylon and Java.
40. The Margined Thrush, *Turdus Africanus*; from Africa.
41. The Hudsonian Thrush, *Turdus Hudsonicus*.

42. The New York Thrush, *Turdus Novæboracensis*.
43. The Gingi Thrush, *Turdus Ginglyanus*; from India.
44. The Dauma Thrush, *Turdus Dauma*; from India.
45. The Black and Scarlet Thrush, *Turdus Speciosus*; from India.

In the Genus AMPELIS.

1. The Coppery Chatterer, *Ampelis Cuprea*; from Surinam.
2. The Red-winged Chatterer, *Ampelis Phænicea*; from Africa.
3. The Crested Chatterer, *Ampelis Cristata*; from America.

In the Genus COLIUS.

1. The White-backed Coly, *Colius Leuconotus*; from the Cape of Good Hope.
2. The Green Coly, *Colius Viridis*; from New Holland.
3. The Indian Coly, *Colius Indicus*. It is cinereous; below rufous.

In the Genus LOXIA.

1. The White-winged Cross-bill, *Loxia Falcirostra*; from North America.
2. The Parrot-billed Grosbeak, *Loxia Psittacea*; from the Sandwich islands.
3. The

3. The Caucasian Grosbeak, *Loxia Rubicilla*.
It is scarlet spotted with white.
4. The Siberian Grosbeak, *Loxia Siberica*. It
is scarlet spotted with brown ; below pale
scarlet ; the wings striped with black and
white. It frequents orchards near water.
It is of the size of a linnet. Its voice
is hoarse and grating. It is perpetually
fluttering.
5. The Crested Grosbeak, *Loxia Cristata* ; from
Æthiopia. It is very large.
6. The Spotted Grosbeak, *Loxia Maculata* ;
from North America.
7. The Dusky Grosbeak, *Loxia Obscura* ; from
New York.
8. The Hudsonian Grosbeak, *Loxia Hudsonica*.
It is brown ; its belly white. Called by
the natives *Atick-oom-ashish*.
9. The Social Grosbeak, *Loxia Socia*. It is
rufous brown, below yellowish, its bridle
black, its tail short. Its length five inches
and a half. Inhabits the country back
from the Cape of Good Hope. It breeds
on the large boughs of the *Mimosa* ; and
sometimes a flock of eight hundred or a
thousand sit together in the same nest,
which they occasionally weave to a great
extent.
10. The Yellow Grosbeak, *Loxia Flavicans* ;
from Asia. Size of a canary.
11. The Yellow-rumped Grosbeak, *Loxia*
Hor-

Hordeacea; from India. Size of a wag-tail.

12. The Eastern Grosbeak, *Loxia Undulata*. It is dusky red, and waved below with brown.
13. The Northern Grosbeak, *Loxia Septentrionalis*. It is deep black, with a white spot on the wings. Found in the North of Europe.
14. The Brown-headed Grosbeak, *Loxia Ferruginea*.
15. The Gray-necked Grosbeak, *Loxia Melanura*; from China.
16. The Brown Grosbeak, *Loxia Fusca*; from Asia.
17. The Thick-billed Grosbeak, *Loxia Crassirostris*.
18. The Black-breasted Grosbeak, *Loxia Pectoralis*.
19. The Black-headed Grosbeak, *Loxia Erythromelas*; from Cayenne.
20. The Blue-shouldered Grosbeak, *Loxia Virens*; from Surinam.
21. The White-tailed Grosbeak, *Loxia Leucura*; from Brazil. Length three inches.
22. The Totty Grosbeak, *Loxia Totta*. Of a brick brown, below whitish. Found among the Hottentots.
23. The Ash-headed Grosbeak, *Loxia Indica*; from India. Very small.
24. The Malabar Grosbeak, *Loxia Malabarica*.

It

It is cinereous; its quills black; its throat and vent white.

25. The Black-bellied Grosbeak, *Loxia Afra*; from Africa.
26. The Asiatic Grosbeak, *Loxia Asiatica*; from China. It is cinereous-reddish; below cinereous; the belly pale red.
27. The Brown-cheeked Grosbeak, *Loxia Canora*; from Mexico.
28. The Radiated Grosbeak, *Loxia Lincata*.
29. The Fasciated Grosbeak, *Loxia Fasciata*; from Africa.
30. The Warbling Grosbeak, *Loxia Cantans*; from Africa. It is marked with cross lines of brown and blackish; below white; the tail wedge-shaped.
31. The Javan Grosbeak, *Loxia Prasina*. It is olive, the rump red, the legs yellow.
32. The Dwarf Grosbeak, *Loxia Minima*; from India and China. It is brown; below brick-coloured.

In the Genus EMBERIZA.

1. The Chinese Bunting, *Emberiza Sinensis*. It is reddish; below yellow; its quills brown.
2. The Yellow-winged Bunting, *Emberiza Chrysoptera*; from the Falkland Islands.
3. The Passerine Bunting, *Emberiza Passerina*; from Russia.

4. The Angola Bunting, *Emberiza Angolensis*.
It is black ; its breast fire-coloured.
5. The Barred-tail Bunting, *Emberiza Fusca* ;
from China.
6. The Weaver Bunting, *Emberiza Textrix*.
7. The Scarlet Bunting, *Emberiza Coccinea*.
Found in the forests of Germany.
8. The Flame - coloured Bunting, *Emberiza Rutila* ; from Siberia.
9. The Rusty Bunting, *Emberiza Ferruginea* ;
from North America.
10. The Black - throated Bunting, *Emberiza Americana* ; from Hudson's Bay.
11. The Military Bunting, *Emberiza Militaris*,
found near Malta, It is yellowish brown ;
below white.
12. The Black-headed Bunting, *Emberiza Melanocephala*,
13. The Brumal Bunting, *Emberiza Brumalis* ;
from Tyrol. It is yellow-brown ; the
under side of its body yellow ; its wing-
quills brown.
14. The White - crowned Bunting, *Emberiza Leucophrys*. Found in Canada, where
it is migratory. Its song pleasant.
15. The Pine Bunting, *Emberiza Pithyornus* ;
from Siberia. It is rufous ; its belly
hoary ; with a white spot on its cheeks,
its temples, and its breast.
16. The Daurian Bunting, *Emberiza Rustica*.
Its head is black, with three longitudinal
white

white bars. Appears so early as the month of March.

17. The Wreathed Bunting, *Emberiza Luctuosa*.
18. The Yellow-breasted Bunting, *Emberiza Aureola*. Frequent in all the pine and poplar forests of Siberia.
19. The Dwarf Bunting, *Emberiza Pusilla*. Haunts the rills on the Daurian Alps.
20. The Sandwich Bunting, *Emberiza Arctica*.
21. The Black-crowned Bunting, *Emberiza Atricapilla*; from the Sandwich Islands.
22. The Surinam Bunting, *Emberiza Surinamensis*. Above cloudy brown; below yellowish; breast spotted with black.
23. The Gaur Bunting, *Emberiza Asiatica*; from India. It is cinereous; its wings and tail brown.
24. The Stained Bunting, *Emberiza Fucata*. Frequent in the humid parts of Siberia.
25. The Ash-headed Bunting, *Emberiza Spodocephala*. Found in the spring near brooks on the Daurian Alps.
26. The Gold-browed Bunting, *Emberiza Chrysophrys*. Inhabits the same tracts with the preceding.

In the Genus TANAGRA.

1. The Variable Tanagre, *Tanagra Variabilis*.
2. The Black Tanagre, *Tanagra Atrata*; from India.

3. The Capital Tanagre, *Tanagra Capitalis*.
Above green; below yellow; the head,
and under part of the neck, black.

In the Genus FRINGILLA.

1. The Scarlet Finch, *Fringilla Coccinea*; from the Sandwich Islands.
2. The Red-breasted Finch, *Fringilla Punicea*; from North America.
3. The Ferruginous Finch, *Fringilla Ferruginea*; from Pennsylvania.
4. The White-throated Finch, *Fringilla Pennsylvanica*.
5. The Fasciated Finch, *Fringilla Fasciata*; from New York.
6. The Grass Finch, *Fringilla Graminea*; from New York.
7. The Norton Finch, *Fringilla Nortoniensis*.
It is black; below white; its throat spotted with ferruginous.
8. The Striped-headed Finch, *Fringilla Striata*; from New York.
9. The Surinam Finch, *Fringilla Surinama*.
It is gray; its wing-quills white on both sides.
10. The Black-headed Finch, *Fringilla Melanocephala*; from China.
11. The Brown Finch, *Fringilla Fusca*; from China.
12. The Red-faced Finch, *Fringilla Afra*; from Angola.

13. The

13. The Parrot Finch, *Fringilla Psittacea*; from New Caledonia.
14. The Red-headed Finch, *Fringilla Erythrocephala*; from the isle of France.
15. The Saffron-fronted Finch, *Fringilla Flaveola*.
16. The Autumnal Finch, *Fringilla Autumnalis*; from Surinam. It is greenish, with a rusty cap; its vent brick-coloured.
17. The Lepid Finch, *Fringilla Lepida*. It is dun-green; the stripe above and below the eyes, and its throat, fulvous; its breast black. It inhabits the woods of Havannah, and sings perpetually with an exceedingly slender voice. It is easily tamed.
18. The Bearded Finch, *Fringilla Barbata*. It inhabits the mountains of Chili near the ocean.
19. The Chilian Finch, *Fringilla Diuca*. It is blue; its throat white. It haunts the neighbourhood of dwellings, and sings delightfully to the rising sun.
20. The Sharp-tailed Finch, *Fringilla Caudacuta*. Found in the back parts of Georgia.
21. The Long-tailed Finch, *Fringilla Macroura*; from Cayenne.
22. The White-eared Finch, *Fringilla Leucotis*; from China.
23. The Ceylon Finch, *Fringilla Zeylonica*. It is yellow; its back greenish; its head black.

24. The

24. The Brown-throated Finch, *Fringilla Fuscicollis*; from China.
25. The Blue-faced Finch, *Fringilla Tricolor*; from Surinam.
26. The Fire Finch, *Fringilla Ignita*; from Africa.
27. The Lunar Finch, *Fringilla Torquata*; from India. It is reddish; its rump blue, with a black crescent on its throat.
28. The Green-rumped Finch, *Fringilla Multicolor*; from Ceylon.
29. The Yellow-throated Finch, *Fringilla Flavicollis*; from North America.
30. The Carthage Finch, *Fringilla Carthaginiensis*. It is entirely cinereous, spotted with brown and yellow.
31. The Ochre Finch, *Fringilla Ochracea*; found in Austria.
32. The Testaceous Finch, *Fringilla Testacea*.
33. The Imperial Finch, *Fringilla Imperialis*; from China. It is rose-coloured; its top and under side bright yellow.
34. The Rusty-collared Finch, *Fringilla Australis*; from Tierra del Fuego.

In the Genus MUSCICAPA.

1. The White-fronted Flycatcher, *Muscicapa Albifrons*; from the Cape of Good Hope.
2. The Black and White Flycatcher, *Muscicapa Melanoleuca*. Found in the plains of Georgia, in the Russian dominions.
3. The

3. The Leucomele Flycatcher, *Muscicapa Leucomela*. Found near the Volga. Nestles in crags. Has a motion with its tail.
4. The Black-fronted Flycatcher, *Muscicapa Nigrijrons*.
5. The White-tailed Flycatcher, *Muscicapa Leucura*; from the Cape of Good Hope.
6. The Spotted Yellow Flycatcher, *Muscicapa Afra*; from the Cape of Good Hope.
7. The Flammeous Flycatcher, *Muscicapa Flammea*; from India.
8. The Society Flycatcher, *Muscicapa Nigra*; from Otaheite. It is deep black.
9. The Tufted Flycatcher, *Muscicapa Comata*; from Ceylon.
10. The Red-vented Flycatcher, *Muscicapa Hæmorrhousa*; from Ceylon.
11. The Yellow-breasted Flycatcher, *Muscicapa Melanietera*; from Ceylon.
12. The Green Flycatcher, *Muscicapa Nitens*; from India.
13. The Gray-necked Flycatcher, *Muscicapa Grisea*; from China.
14. The Yellow-necked Flycatcher, *Muscicapa Flavicollis*; from China.
15. The Orange-vented Flycatcher, *Motacilla Fuscescens*; from China.
16. The Blue-headed Flycatcher, *Muscicapa Cyanocephala*; from Manilla.
17. The Yellow-throated Flycatcher, *Muscicapa Manillensis*.

18. The

18. The Fan-tailed Flycatcher, *Muscicapa Flabellifera* ; from New Zealand and Tanna. Spreads its tail like a fan when it flies.
19. The Supercilious Flycatcher, *Muscicapa Superciliofa*. It is cinereous, and below carnation.
20. The Ferruginous Flycatcher, *Muscicapa Ferruginea* ; from Carolina.
21. The Long-tailed Flycatcher, *Muscicapa Aëdon*. It is frequent among the rocks and warm situations in Dauria, and sings delightfully even in the night.
22. The New Holland Flycatcher, *Muscicapa Novæ Hollandæ*. It is brown, and below whitish.
23. The Sooty Flycatcher, *Muscicapa Deserti*. Found in the deserts of Africa.
24. The Olive Flycatcher, *Muscicapa Caledonica* ; from New Caledonia.
25. The Luteous Flycatcher, *Muscicapa Lutea* ; from Otaheite.
26. The Yellow-headed Flycatcher, *Muscicapa Ochrocephala* ; from New Zealand.
27. The Yellow-fronted Flycatcher, *Muscicapa Flavifrons* ; from the island of Tanna.
28. The Clouded Flycatcher, *Muscicapa Navia* ; from New Caledonia.
29. The Red-bellied Flycatcher, *Muscicapa Erythrogastra* ; from Norfolk Island.
30. The Sandwich Flycatcher, *Muscicapa Sandwichensis*.

31. The Dusky Flycatcher, *Muscicapa Obscura*;
from the Sandwich Islands.
32. The Spotted-winged Flycatcher, *Muscicapa*
Maculata; from the Sandwich Islands.
33. The Striped Flycatcher, *Muscicapa Striata*;
from North America.
34. The Dun Flycatcher, *Muscicapa Sibirica*;
from Kamtschatka.
35. The Red-faced Flycatcher, *Muscicapa Ery-*
thropis. Found near the river Jenesei.
36. The Cinnamon Flycatcher, *Muscicapa Cin-*
nanomea; from Cayenne.
37. The Yellow-rumped Flycatcher, *Muscicapa*
Spadicea; from Cayenne.
38. The Surinam Flycatcher, *Muscicapa Su-*
rinama.
39. The Phœbe Flycatcher, *Muscicapa Phæbe*;
from New York. It is ash-olive; below
yellowish.
40. The Golden-throat Flycatcher, *Muscicapa*
Ocbroleuca; from North America.
41. The Nitid Flycatcher, *Muscicapa Nitida*;
from China.
42. The Lesser Crested Flycatcher, *Muscicapa*
Acadica; from Nova Scotia.
43. The Hanging Flycatcher, *Muscicapa Nove-*
boracensis; from New York.
44. The Passerine Flycatcher, *Muscicapa Passe-*
rina; from the island of Tanna.
45. The Double-coloured Flycatcher, *Musci-*
capa Dichroa; from the south of Africa.

46. The

46. The Javan Flycatcher, *Muscicapa Javanica*. Its tail is very long and round.

In the Genus ALAUDA.

1. The Malabar Lark, *Alauda Malabarica*. It is brown; its feathers edged with rufous, and spotted with white at the tip. A beautiful species.
2. The Gingi Lark, *Alauda Gingica*; from Comorandel. Its head is cinereous; its under side black.
3. The Black Lark, *Alauda Tartarica*. Found in Tartary.
4. The Yelton Lark, *Alauda Yeltoniensis*. It is black, variegated with rufous and white. Found at the lake Yelton, beyond the Volga. Is gregarious; and in the month of August is fat and delicious.
5. The New Zealand Lark, *Alauda Novæ Zealandiæ*. It is dun; its feathers edged with ashy; its belly white; its eye-brows white; a black bar on its eye.
6. The Testaceous Lark, *Alauda Testacea*; from Gibraltar.
7. The Portugal Lark, *Alauda Lusitana*; from Portugal.

In the Genus MOTACILLA.

1. The Hudsonian Wagtail, *Motacilla Hudsonica*. It is rusty brown; below whitish; dusky

dusky streaks on the neck and the under side.

2. The Indian Wagtail, *Motacilla Indica*. It is greenish gray, below yellowish; two black crescents on the breast.
3. The Yellow-headed Wagtail, *Motacilla Citreola*; found in Siberia.
4. The Tschutki Wagtail, *Motacilla Tschutschensis*. It is olive-brown, below white.
5. The Green Wagtail, *Motacilla Viridis*; from Ceylon.

In the Genus SYLVIA.

1. The Sardinian Warbler, *Sylvia Moschita*. It is lead-coloured, with a tawny cap.
2. The Aquatic Warbler, *Sylvia Aquatica*; found in Italy, where it is migratory. It is rusty, spotted with brown, and a white bar on the wings.
3. The Chestnut-bellied Warbler, *Sylvia Erythrogastra*. Haunts the gullies in the Caucasian mountains.
4. The Guiana Red-tail, *Sylvia Guianensis*.
5. The Black Red-tail, *Sylvia Atrata*.
6. The Lesser White-throat, *Sylvia Sylviella*. It is ash-brown, below dirty white; the two middle tail-quills shorter and awl-shaped. This species is pretty frequent in England among the hedges, though seldom observed, being exceedingly small. It nestles in orchards near the ground.
7. The

7. The Patagonian Warbler, *Sylvia Patagonica*.
It is cinereous, spotted below with white.
8. The White-breasted Warbler, *Sylvia Dumetorum*. Inhabits the bushes in Germany and Russia.
9. The Black-jawed Warbler, *Sylvia Nigrirostris*.
10. The Rusty-headed Warbler, *Sylvia Borealis*; from Kamtschatka.
11. The Buff-faced Warbler, *Sylvia Lutescens*.
12. The Siberian Warbler, *Sylvia Montanella*.
It is brick-coloured, spotted with brown, below yellowish.
13. The Moor Warbler, *Sylvia Maura*; from Russia. It is black, edged with gray, below white.
14. The Yellow-browed Warbler, *Sylvia Superciliofa*; from Russia.
15. The Gilt-throat Warbler, *Sylvia Ferruginea*. Found about the river Tunguska.
16. The Blue-tailed Warbler, *Sylvia Cyanura*.
Inhabits the shady humid places near the river Jenisei.
17. The Daurian Warbler, *Sylvia Aurorea*. It is black; its top gray-white.
18. The Black-poll Warbler, *Sylvia Striata*; from New York.
19. The Gray-poll Warbler, *Sylvia Incana*; from New York.
20. The Yellow-fronted Warbler, *Sylvia Flavifrons*; from Pennsylvania.

21. The

21. The Blackburnian Warbler, *Sylvia Blackburniæ*; from New York. It has a black cap, with a black bar across the eyes.
22. The Murine Warbler, *Sylvia Murina*.
23. The Thorn-tailed Warbler, *Sylvia Spinicauda*; from Tierra del Fuego.
24. The Citrine Warbler, *Sylvia Citrina*; from New Zealand.
25. The Long-legged Warbler, *Sylvia Longipes*; from New Zealand.
26. The Black-hooded White-ear, *Sylvia Pileata*. Found at the Cape of Good Hope, and in China.
27. The White-crowned Warbler, *Sylvia Albigapilla*; from China.
28. The Pink Warbler, *Sylvia Caryophyllacea*; from Ceylon.
29. The Cingalese Warbler, *Sylvia Cingalensis*; from Ceylon. It is variegated green, below bright yellow.
30. The China Warbler, *Sylvia Sinensis*. It is green; a pale spot behind the eyes.
31. The Tailor Warbler, *Sylvia Sutoria*. Its colour is light yellow; its length three inches; its weight ninety grains. It sews with delicate fibres a dead leaf to the side of a living one, and lines the cavity with feathers, gossamer, and down. Its eggs are white, and not larger than those of ants. It is found in India.

32. The Black-throated Warbler, *Sylvia Gularis*;
from South America.
33. The Long-billed Warbler, *Sylvia Kamtschatkensis*.
34. The Ochry-tailed Warbler, *Sylvia Ochrura*;
from Persia.
35. The Awatcha Warbler, *Sylvia Awatcha*.
It is brown, below white; its breast
spotted with black.
36. Van Diemen's Warbler, *Sylvia Canescens*.
It is hoary, below white; head black;
front streaked with white.
37. The Black-necked Warbler, *Sylvia Nigricollis*;
from India.
38. The Plumbeous Warbler, *Sylvia Plumbea*.
Very small.

In the Genus PIPRA.

1. The Superb Manakin, *Pipra Superba*.
2. The White-headed Manakin, *Pipra Leucocephala*;
from Surinam.
3. The Little Manakin, *Pipra Minuta*;
from India.
4. The Crimson-vented Manakin, *Pipra Hammerhoa*.
5. The Black-throated Manakin, *Pipra Nigricollis*.
6. The Orange-bellied Manakin, *Pipra Capensis*;
from the Cape of Good Hope.
7. The Cinereous Manakin, *Pipra Cinerea*.

In

In the Genus PARUS.

1. The Norway Titmouse, *Parus Strömei*. It is very like the ox-eye, only its head is yellowish-green instead of black.
2. The black-breasted Titmouse, *Parus Afer*; from the Cape of Good Hope and India.
3. The Hudson's Bay Titmouse, *Parus Hudsonicus*. It is reddish-brown, its back cinereous, its throat jet black, its flanks rufous.
4. The Chinese Titmouse, *Parus Sinensis*. It is rusty-brown, its wings and tail brown, edged with black.
5. The Great-headed Titmouse, *Parus Macrocephalus*; from New Zealand. It is black; its belly and front white.
6. The New Zealand Titmouse, *Parus Novæ Zealandiæ*. It is ash-red, below rufous-gray; its eye-brows white.
7. The White Titmouse, *Parus Kujafseik*; found in the oak-woods of Siberia.

In the Genus HIRUNDO.

1. The Otaheite Swallow, *Hirundo Tabitica*. It is blackish-brown; its front, its neck, and its under side, purple-fulvous; its tail somewhat forked and black.
2. The Daurian Swallow, *Hirundo Daurica*. It is blue, below white; its temples and

rump ferruginous; its outermost tail-quill very long, and marked on the inside with a white spot. It inhabits the lofty rocks and the mountain-caves of Siberia. Its nest is large and hemispherical, constructed elegantly with pellets of pure mud, and having an entrance of some inches length.

3. The Red-headed Swallow, *Hirundo Erythrocephala*; from India. A small species.
4. The Oonalaſchkan Swallow, *Hirundo Aoonalaſchkenſis*. It is blackish, below ashy; its rump whitish.
5. The Chineſe Swift, *Hirundo Sinenſis*. It is brown, below tawny-gray; its cap rufous; its throat and orbits white. Length eleven inches and a half.

In the Genus CAPRIMULGUS.

1. The Bombay Goatsucker, *Caprimulgus Asiaticus*. It is ashy, clouded with black and ferruginous; cinereous bars on the breast.
2. The Crested Goatsucker, *Caprimulgus Novæ Hollandiæ*; from New Holland. Rather smaller than the European.

In the Genus COLUMBA.

1. The White-crowned Pigeon, *Columba Leucocephala*; found in North America and in Jamaica.
2. The

2. The White-winged Pigeon, *Columba Leucoptera*; from India.
3. The Lesser Crowned Pigeon, *Columba Cristata*; from India. It nestles among grass and reeds.
4. The Gray-headed Pigeon, *Columba Albicapilla*; from the island Panay.
5. The Purple-shouldered Pigeon, *Columba Phœnicoptera*; from India.
6. The Garnet-winged Pigeon, *Columba Erythroptera*; from the island Eimeo.
7. The Green-winged Pigeon, *Columba Indica*; from Amboyna.
8. The Jamboo Pigeon, *Columba Jamboo*; from Sumatra and Java. It is green; its front red; its breast white.
9. The Purple Pigeon, *Columba Purpurea*; from Java.
10. The Purple-breasted Pigeon, *Columba Eimensis*; from the island Eimeo.
11. The Hook-billed Pigeon, *Columba Curvirostra*; from the island of Tanna.
12. The Ferrugineous-vented Pigeon, *Columba Specifica*; from the Friendly Islands.
13. The White Nutmeg Pigeon, *Columba Alba*; from New Guinea.
14. The New Zealand Pigeon, *Columba Zealandica*. It is red; its belly white; its rump blue; its tail black.
15. The Brown Pigeon, *Columba Brunnea*; from New Zealand.

16. The Bronze-winged Pigeon, *Columba Chalcopetra*; from Norfolk Island.
17. The Hackled Pigeon, *Columba Franciæ*; from the Ile of France.
18. The Spotted Green Pigeon, *Columba Maculata*.
19. The Gray Pigeon, *Columba Corensis*; from Coro, in South America.
20. The Egyptian Turtle, *Columba Ægyptiaca*. It is reddish; its throat spotted with black feathers.
21. The Surinam Turtle, *Columba Surinamensis*. It is cinereous, below white; its bill blue.
22. The Surat Turtle, *Columba Suratensis*. It is gray; the upper side of its neck black; its nape white.
23. The Blue-crowned Turtle, *Columba Cyanocephala*; from India and China.
24. The Red-breasted Turtle, *Columba Cruenta*; from Manilla.
25. The Sanguine Turtle, *Columba Sanguinea*; from Manilla.
26. The Malacca Pigeon, *Columba Malaccensis*. The sides of its neck are white. It is of the size of a sparrow, and very beautiful.
27. The Melancholy Turtle, *Columba Bantamensis*; from Java. Its tail is wedge-shaped; its orbits naked and fleshy.
28. The Black-winged Turtle, *Columba Melanoptera*; from Chili.

In

In the Genus PENELOPE.

The Piping Curassow, *Penelope Pipile*; from Brazil. Has a blue caruncle on its throat; its belly white; its back brown, spotted with deep black.

In the Genus NUMIDA.

1. The Mitred Pintado, *Numida Mitrata*; from Madagascar and Guinea.
2. The Crested Pintado, *Numida Cristata*; from Africa.

In the Genus CRAX.

1. The Globose Curassow, *Crax Globicera*; from Guiana.
2. The Galeated Curassow, *Crax Galeata*; from Curaçoa.

In the Genus PHASIANUS.

1. The Superb Pheasant, *Phasianus Superbus*; from China.
2. The African Pheasant, *Phasianus Africanus*. It is ash-blue, below white; its head crested.
3. The Impeyan Pheasant, *Phasianus Impeyanus*; from India. It is crested, and purple with glossy green; below black.
4. The Coloured Pheasant, *Phasianus Leucmelanos*; from India. It is crested and black; the feathers on the body edged with white.

In the Genus TETRAO.

1. The Rock Grouse, *Tetrao Rupestris*; from Hudson's Bay. It is orange, variegated with black stripes and white blotches; its toes feathered; its tail-quills black tipped with white; its straps black. It is much smaller than the white grouse. It frequents not the woods, but sitting on the rocks with its neck extended, it utters a noise like a person sneezing.
2. The Rehufak Grouse, *Tetrao Lapponicus*. Its back is black variegated with ferruginous; its neck ferruginous spotted with black; its breast and vent white. Size of a hen. Found in the Lapland Alps.
3. The Helingian Grouse, *Tetrao Canus*. Its body is hoary waved with brown; its bill and legs black. Resembles something the Hazel Grouse.
4. The Sand Grouse, *Tetrao Arenarius*; from the deserts about the Caspian Sea. Its collar, belly, and vent, are deep black; its tail-quills striped with brown and gray, and tipped with white; the two middle ones tawnyish.
5. The Namaqua Grouse, *Tetrao Namaqua*; from the Cape of Good Hope. Its feet shaggy; its back chestnut; its belly blackish; its two middle tail-quills projecting and awl-shaped.
6. The

6. The Heteroclite Grouse, *Tetrao Paradoxus*.
Its feet three-toed and thaggy ; its back waved with gray and black ; its belly black, with pale spots ; the sides of its neck marked with a fulvous spot.

In the Genus PERDIX.

1. The Cape Partridge, *Perdix Capensis*. It is almost double-spurred ; its breast streaked with white ; its legs red.
2. The Ceylon Partridge, *Perdix Ceylonensis*. Size of a hen : double-spurred ; its head and neck variegated with black and white.
3. The Brown African Partridge, *Perdix Spadiceus* ; from Madagascar.
4. The Arragon Partridge, *Perdix Aragonica*. It is spurred ; its wings, belly, and thighs black.
5. The Pintado Partridge, *Perdix Madagascariensis*.
6. The Pearled Partridge, *Perdix Afra* ; from the Cape of Good Hope.
7. The Gingi Partridge, *Perdix Gingica*. It is rufous-gray ; its rump spotted with black.
8. The Green Partridge, *Perdix Viridis*.
9. The Javan Partridge, *Perdix Javanicus*. It is cinereous, with dusky crescents ; its cheeks black.
10. The Madagascar Quail, *Perdix Striata*. It is twice as large as the common quail.

21. The

11. The Gray-throated Quail, *Perdix Griseus*; from Madagascar. Size of the common quail.
12. The New Guinea Quail, *Perdix Novæ Guineæ*. Its body brown; the coverts of its wings edged with yellow. One half smaller than the common quail.
13. The Manilla Quail, *Perdix Manillensis*. Its body blackish above, yellowish below, with blackish stripes; its throat white. Size of a sparrow.
14. The Hudsonian Quail, *Perdix Hudsonica*. Its body pale-rusty; its neck spotted with white; its wings, its back, and its tail, marked with cross white lines widely parted. A small species.
15. The Kakerlik Quail (so called from its cry) *Perdix Kakerlik*; from Bucharía. Its bill, eye-brows, and legs, are scarlet; its breast cinereous.
16. The Caspian Quail, *Perdix Caspius*. It is cinereous spotted with scarlet; its nostrils, orbits, and temples yellow.
17. The Gibraltar Quail, *Perdix Gibraltarica*. Its body above brown striped with black; below yellowish-white; black crescents on the breast.
18. The Luzonian Quail, *Perdix Luzoniensis*. Brown above; yellow below; head variegated with black and white.
19. The Andalusian Quail, *Perdix Andalusicus*.
Its

Its body rufous waved with black; below yellowish.

In the Genus PSOPHIA.

The Undulated Trumpeter, *Psophia Undulata*; from Africa. Size of a goose.

In the Genus OTIS.

1. The Chilian Bustard, *Otis Cbilenfis*. Its head and throat smooth; its body white; its top and tail cinereous.
2. The White-chinned Bustard, *Otis Indica*.

In the Genus PLATALEA.

The Dwarf Spoonbill, *Platalea Pygmea*; from Guiana and Surinam. Its body brown above, and white below. Size of a sparrow.

In the Genus MYCTERIA.

The Indian Jabiru, *Mycteria Asiatica*. It is white; a stripe across its eyes; the lower part of its back, and its quills, black.

In the Genus ARDEA.

1. The Gigantic Crane, *Ardea Argala*. It is cinereous; its head, its neck, and jugular pouch naked; its belly and shoulders bright white. It is five or seven feet long,

long, and excessively voracious. Found in Asia and Africa, and particularly near the mouths of rivers in the province of Bengal.

2. The Dusky Crane, *Ardea Obscura*. Size of a bittern. Found in Sclavonia.
3. The Dwarf Heron, *Ardea Pumila*. Found in the Caspian Sea. It is chestnut; the middle-quills of its wings are variegated with white and yellow. It is nineteen inches long.
4. The Minute Bittern, *Ardea Exilis*. Its neck rufous; a crescent on its breast, and its quills black. Found in Jamaica and in North America. Hardly larger than a thrush.
5. The Ferruginous Heron, *Ardea Ferruginea*, Frequent on the Tanais; nests on trees. Length twenty-one inches.
6. The Red-headed Heron, *Ardea Erythrocephala*. Found in Chili. Its crest reaches to its back.
7. The Blue-headed Heron, *Ardea Cyancephala*. Found in Chili. Its wings are black, edged with white.
8. The Striated Heron, *Ardea Striata*; from Guiana.
9. The Wattled Heron, *Ardea Carunculata*; from the Cape of Good Hope. Length five feet and a half.

10. The

10. The Rufous Heron, *Ardea Rufa*. Found sometimes near the pools in Austria.
11. The Rusty-crowned Heron, *Ardea Rubiginosa*; from North America. Size of a bittern.
12. The Ash-coloured Heron, *Ardea Cana*; from North America.
13. The Streaked Heron, *Ardea Virgata*; from North America.
14. The Snow Heron, *Ardea Nivea*. Length two feet. Found in most parts of the world. Nests on lofty trees.
15. The Galeated Heron, *Ardea Galeata*. Its body milky; its bill yellow; its legs scarlet. Found in Chili.
16. The Sacred Heron, *Ardea Sacra*. It is white; its head smooth, the feathers on its back jagged and white. Found at Otaheite, where it is held sacred.
17. The Chinese Heron, *Ardea Sinensis*. It is brown with paler streaks; its quills black. Small species.
18. The Johanna Heron, *Ardea Johanna*. A black crest; the body gray above and white below; the wings black.
19. The Lohaujung Heron, *Ardea Indica*. It is brown variegated with green; its tail black.
20. The Yellow-necked Heron, *Ardea Flavicollis*; from India. Length two feet.

21. The

21. The White-fronted Heron, *Ardea Novæ Hollandiæ*. Length twenty-eight inches.

In the Genus TANTALUS.

1. The Black-faced Ibis, *Tantalus Melanopsis*. Found in New Year's Island, where it breeds on the rocks. Length twenty-eight inches.
2. The White-headed Ibis, *Tantalus Leucocephalus*; from Ceylon. A broad band of black crosses the breast; the wings are black; the coverts of the tail long, and of a fine pink. Its rosy feathers lose their colour during the rainy season. It makes a snapping noise with its bill. A very large species.
3. The Ethiopian Ibis, *Tantalus Æthiopicus*, the *Abou Hannes* of Mr. Bruce. It is white; the head and upper side of the neck brown; the hind part of its back and its wing-quills black.
4. The Green Ibis, *Tantalus Viridis*. Found in Russia; flies in flocks, and nests in trees.
5. The Glossy Ibis, *Tantalus Igneus*. Resembles the preceding, and found likewise in Russia. One was killed in Cornwall.
6. The Lesser Ibis, *Tantalus Minutus*. Its face, bill, and legs greenish; its body ferruginous, and white below. Found in Surinam.

7. The

7. The Black-headed Ibis, *Tantalus Melanocephalus*; from India. Length twenty-one inches.
8. The Pillan Ibis, *Tantalus Ibis*. Its face, bill, and legs, are brown; its body white; its quills black. Inhabits the lakes and rivers of Chili, and frequently sits upon the trees. Size of a goose.
9. The Hagedash Ibis, *Tantalus Hagedash*. It is cinereous; its back variegated with green and yellow; its wings blue-black; its lesser coverts violet. Found at the Cape of Good Hope. Feeds on roots; passes the night on trees. Larger than a hen.

In the Genus NUMENIUS.

1. The Otaheitan Curlew, *Numenius Tabitenfis*. It is tawny-white; its neck streaked with black; its back and the coverts of its wings waved with blackish and whitish. Length twenty inches.
2. The Eskimaux Curlew, *Numenius Borealis*. Its bill and legs black; its body brown spotted with gray. Inhabits the wet meadows in the country of Hudson's Bay.
3. The Cape Curlew, *Numenius Africanus*. It is cinereous; its neck; its belly, and its rump, white.

4. The

7. The

4. The Pygmy Curlew, *Numenius Pignus*,
Size of a lark. Inhabits Europe, and
occurs sometimes in England.

In the Genus SCOLOPAX.

1. The Little Woodcock, *Scolopax Minor*; from
North America. Length eleven inches
and a half.
2. The Great Snipe, *Scolopax Major*. Its back
and coverts are brick-coloured spotted
with black, and edged with white; its
neck and breast yellowish white, with
crescents of black; its sides waved with
black. Inhabits Siberia, and found like-
wise in England and Germany. Length
sixteen inches: weight eight ounces.
3. The Cayenne Snipe, *Scolopax Cayannensis*:
It is cinereous brown, variegated with
brick-colour; the under side of its body
and its rump white. Length thirteen
inches.
4. The Straight-billed Snipe, *Scolopax Belgica*.
Found in the Netherlands.
5. The Marbled Goodwit, *Scolopax Marmorata*;
from Hudson's Bay. Size of the Ame-
rican goodwit.
6. The Semipalmated Snipe, *Scolopax Semi-
palmata*; from North America. Length
fourteen inches.
7. The Stone Snipe, *Scolopax Melanoleuca*. Its
tail and rump striped with black and
white;.

white; its legs yellow. Found in North America. Twice as large as the common snipe.

8. The Yellow-shank Snipe, *Scolopax Flavipes*. It is whitish, spotted with black; its wings brown; its belly, and the coverts of its tail, white. Appears in autumn in the state of New York. Length eleven inches.
9. The Nodding Snipe, *Scolopax Nutans*. It is cinereous, variegated with ferruginous; its belly, its rump, and its tail, white. Found on the shores of Labrador.
10. The Black Snipe, *Scolopax Nigra*; from the Northern Archipelago.
11. The Red-breasted Snipe, *Scolopax Novboracensis*. Inhabits the coasts of New York.
12. The Brown Snipe, *Scolopax Grisea*. Found on the coasts of New York. Length eleven inches.
13. The Ash-coloured Snipe, *Scolopax Incana*; from the Eimeo and Palmerston Islands. Length eleven inches.
14. The Terek Snipe, *Scolopax Terek*. It is cinereous, spotted with brown, and white below. Found near the Caspian Sea: flies in flocks. Length nine inches.

In the Genus TRINGA.

1. The Red-legged Sandpiper, *Tringa Erythropus*. Larger than the ruff.
2. The Wood Sandpiper, *Tringa Glareola*. Its bill is smooth; its legs greenish; its body brown dotted with white; its breast whitish. Found in the swamps of Sweden. Size of a snipe.
3. The White-winged Sandpiper, *Tringa Leucoptera*. Found in the islands of the South Sea.
4. The Selvinger Sandpiper, *Tringa Maritima*. It is variegated with gray and black; below white; its throat and tail dusky. Inhabits the shores of Norway and Iceland.
5. The Waved Sandpiper, *Tringa Undata*. Found in Denmark and Norway.
6. The Uniform Sandpiper, *Tringa Uniformis*; from Iceland.
7. The Brown Sandpiper, *Tringa Fusca*. Found in England. Size of a jack snipe.
8. The Black Sandpiper, *Tringa Lincolnensis*; from Lincolnshire.
9. The New York Sandpiper, *Tringa Noveboracensis*. It is blackish; its feathers edged with whitish; below white; its tail cinereous.
10. The Streaked Sandpiper, *Tringa Virgata*; from Sandwich Bay.

11. The

11. The Boreal Sandpiper, *Tringa Borealis*. It is cinereous; its neck, its sides, and its breast, waved with a paler hue. Found in King George's Sound.
12. The Newfoundland Sandpiper, *Tringa Novæ Terræ*. It is blackish, marginated with brown; below cinereous white.
13. The Variegated Sandpiper, *Tringa Variata*; from Nootka Sound.
14. The Little Sandpiper, *Tringa Puffilla*. Found in the northern parts of Europe. Size of a sparrow.
15. The Red Sandpiper, *Tringa Islandica*. Size of a turtle. Its bill and legs brown. Found in the northern parts of Europe, Asia, and America, and sometimes in Great Britain.
16. The Southern Sandpiper, *Tringa Australis*. Its bill and legs black; its belly and rump whitish. Found at Cayenne. Length eleven inches.
17. The Banded Sandpiper, *Tringa Fasciata*; from Astracan.
18. The Black-topped Sandpiper, *Tringa Kaptufcha*. Inhabits the pools of Siberia.

In the Genus CHARADRIUS.

1. The Ruddy Plover, *Charadrius Rubidus*; from Hudson's Bay.
2. The Black-crowned Plover, *Charadrius Atricapillus*;

Atricapillus; from New York. Length ten inches.

3. The New Zealand Plover, *Charadrius Novæ Zealandiæ*. It is ash-green; its face and collar black. Larger than the ringed plover, being eight inches long.
4. The Gregarious Plover, *Charadrius Gregarius*. It is cinereous; below white; the quills of its tail white, with a black bar. Abounds on the meadows near the Volga and the Jaik.
5. The Asiatic Plover, *Charadrius Asiaticus*. It is gray-brown; its front, its eye-brows, its throat, and its belly, are white. Found sometimes in the salt marshes in South Tartary. Larger than the ringed plover.
6. The Rusty - crowned Plover, *Charadrius Falklandicus*; from the Falkland Islands. Length seven inches and a half.
7. The Dusky Plover, *Charadrius Obscurus*. Its legs blueish. Found in New Zealand.
8. The Fulvous Plover, *Charadrius Fulvus*. Found in the marshes of Otaheite. Length twelve inches.
9. The White - bellied Plover. *Charadrius Leucogaster*. Length six inches.
10. The Red-necked Plover, *Charadrius Rubricollis*; from Van Diemen's Land.

11. The Indian Plover, *Charadrius Indicus*. It is brown; below white; two brown stripes on the breast. Size of a lark.

In the Genus RALLUS.

1. The Clapper Rail, *Rallus Crepitans*; from North America. It is olive-brown; its throat white. Length fourteen or sixteen inches.
2. The Trogodyte Rail, *Rallus Australis*; from New Zealand. Its wings and tail deep brown; its feathers striped with black. Length fifteen or seventeen inches.
3. The Cape Rail, *Rallus Capensis*. It is ferruginous; below striped with black and white. Size of the land rail.
4. The Blue-necked Rail, *Rallus Cærulescens*; from the Cape of Good Hope. Length seven inches.
5. The Ceylon Rail, *Rallus Zeylanicus*. Its head is blackish; its bill and legs red. Larger than the water rail.
6. The Pacific Rail, *Rallus Pacificus*. It is black, dotted with white; its wings striped; its breast blueish-ash. Found in Otaheite.
7. The Tabuan Rail, *Rallus Tabuensis*. Entirely black, red about the eyes, the tail extremely short. Found in the Society Islands.

8. The Otaheite Rail, *Rallus Taitiensis*. It is cinereous; its tail black; its throat white. Length six inches.
9. The Dwarf Rail, *Rallus Puffillus*. In size, colour, and form, it resembles a lark. Frequents the salt marshes of Dauria.

In the Genus *PARRA*.

1. The Luzonian Jacana, *Parra Luzonensis*. It is brown. Smaller than the lap-wing.
2. The Chinese Jacana, *Parra Sinensis*. It is wine-chestnut. Size of the painted pheasant.
3. The African Jacana, *Parra Africana*. It is cinnamon-coloured; its neck white below. Length nine inches and a half.
4. The Faithful Jacana, *Parra Chavaria*. Its crest hangs from the back of its head; its body is brown above. Found near Carthagera. Feeds on herbs, and is easily tamed.
5. The Indian Jacana, *Parra Indica*. It is blackish-blue; its back and wings brown. Builds a floating nest with herbs near the brinks of pools.
6. The Chilian Jacana, *Parra Chilenfis*. Its legs brown; its head somewhat crested behind. Feeds on insects and worms: is vociferous: builds its nest among the grass,

grafs, and lays four fulvous eggs, dotted with black.

In the Genus GALLINULA.

1. The Carthagenæ Gallinule, *Gallinula Carthagenæ*. Its front blue; its body rufous.
2. The Black-bellied Gallinule, *Gallinula Rufficollis*. Its body is black below; its back dusky-green; its breast rufous. Length seventeen inches.
3. The White Gallinule, *Gallinula Alba*. Its front, bill, and legs, red. Found in Norfolk Island. Length two feet.
4. The Yellow-breasted Gallinule, *Gallinula Noveboracensis*; from New York. Smaller than a quail.
5. The Crested Gallinule, *Gallinula Cristata*. Found in China and India. Length eighteen inches.

In the Genus PHALAROPUS.

1. The Plain Phalarope, *Phalaropus Glacialis*. Inhabits the Icy Sea.
2. The Brown Phalarope, *Phalaropus Fuscus*; from North America.
3. The Barred Phalarope, *Phalaropus Cancellatus*; from Christmas Sound. Length seven inches and a half.

In the Genus FULICA.

The Cinereous Coot, *Fulica Americana* ;
from North America.

In the Genus PHŒNICOPTERUS.

The White-winged Red Flamingo, *Phœnicopterus Chilensis*. Frequents the lakes
in Chili,

In the Genus DIOMEDEA.

1. The Chocolate Albatross, *Diomedea Spadicea* ;
from the South Sea. Its bill is whitish ;
its body deep chestnut-brown ; its belly
pale ; its face and upper side of its wings
white.
2. The Yellow-nosed Albatross, *Diomedea Chlororhynchos*. Its bill is black above, and
yellow at its base ; its body above dark
blue ; its under side and the rump white.
Found in the South Sea and at the Cape
of Good Hope. Size of a goose.
3. The Sooty Albatross, *Diomedea Fuliginosa*.
A white crescent behind the eyes. Found
within the Antarctic Circle. Nearly
three feet long.

In the Genus ALCA.

1. The Labrador Auk, *Alca Labradoræ*. Size
of the Puffin. Its bill keel-shaped ; its
lower

lower mandible swelling; a black spot at the tip; its orbits and temples whitish; its belly white.

2. The Crested Auk, *Alca Cristatella*. Size of the redwing. Its bill is compressed, and somewhat furrowed; its body blackish; ferruginous spots on its back; a crest on its front leaning backwards. Found in the islands near Japan.
3. The Ancient Auk, *Alca Antiqua*. Its bill is black, whitish at the base; its body blackish, its belly white. Found near Kamtschatka and the Kurile Islands.
4. The Flat-billed Auk, *Alca Pygmaea*. Its body is deep black, below cinereous. Found in the Isle of *Aves*, between Asia and America. Is gregarious. Length seven inches.

In the Genus URIA.

1. The White Guillemot, *Uria Lacteola*. Size of the black guillemot. Found on the west coast of Holland.
2. The Marble Guillemot, *Uria Marmorata*; from Kamtschatka. Length ten inches.

In the Genus COLYMBUS.

1. The Striped Diver, *Colymbus Striatus*. Found in the lakes of North America. Weighs between two and three pounds.

2. The

2. The Chinese Diver, *Colymbus Sinensis*. It is greenish-brown with darker spots; its breast and belly rufous white, with rufous spots.

In the Genus STERNA.

1. The Surinam Tern, *Sterna Surinamensis*. It is cinereous; below white, its legs red.
2. The African Tern, *Sterna Africana*. It is white; its body blueish above; its top black; its wings spotted with brown.
3. The Philippine Tern, *Sterna Philippina*. It is wine-gray, a white cap; the fillet across the eyes, the wing-quills, the tail, and the bill, black. Twice as large as the greater tern.
4. The Simple Tern, *Sterna Simplex*. It is inclined to lead-colour, white below, its top whitish. Found in Cayenne. Size of the noddy.
5. The Egyptian Tern, *Sterna Nilotica*. It is cinereous, below white; its orbits black, spotted with white. Size of a pigeon.
6. The Striated Tern, *Sterna Striata*; from New Zealand.
7. The Wreathed Tern, *Sterna Vittata*; from Christmas Sound. Length fifteen inches.
8. The Brown Tern, *Sterna Spadicea*; from Cayenne. Its vent white. Length fifteen inches.

9. The

9. The White Tern, *Sterna Alba*. Its bill and legs are black. Found in the East Indies, at the Cape of Good Hope, and in the South Sea,
10. The Chinese Tern, *Sterna Sinensis*. It is white, its back cinereous; a black bar on its top. Length eight inches.
11. The Southern Tern, *Sterna Australis*; from Christmas Sound. It is cinereous, below gray; its wing-quills white. Length seven inches and a half or nine inches.
12. The Hooded Tern, *Sterna Metopoleucos*. Found in Russia and the South of Siberia. Goes in pairs. Length eight inches and a half.

In the Genus LARUS.

1. The Great Gull, *Larus Ichthyatus*. Its head and the top of its neck black; its back and wings grayish; its eye-lids and tail white. Size of the barnacle. In flying, utters a deep croak. Found on the Caspian Sea.
2. The Little Gull, *Larus Minutus*. It is snowy; its head black; its wings dirty white; its legs scarlet. Size of the misfel. Frequents the large rivers in Siberia.
3. The Esquimaux Keeask, *Larus Keeask*. It is brown; the coverts of its wings variegated

ringed with white; its tail black, spotted and tipped with white. It arrives in Hudson's Bay in April: makes its nest with grass, and lays two pale-rusty eggs with black spots. Length twenty-two inches.

In the Genus PROCELLARIA.

1. The Dark-gray Petrel, *Procellaria Grisea*.
The inferior coverts of its wings white; its bill brown; its legs blueish before. Length fourteen or fifteen inches. Found in the southern hemisphere.
2. The Glacial Petrel, *Procellaria Gelida*. It is blueish-ash; its back blackish; its throat and breast white; its bill yellow; its legs blue. Length nineteen inches. Found on the utmost verge of the Antarctic Ocean.
3. The White-breasted Petrel, *Procellaria Alba*. It is dusky-blackish; its belly and vent white. Length sixteen inches. Found in the islands of the Pacific Ocean.
4. The Cinereous Petrel, *Procellaria Cinerea*.
White below; tail blackish; bill yellow; legs ashy. Length twenty inches and a half. Found within the Antarctic Circle.
5. The Black-toed Petrel, *Procellaria Melanopus*. It is dark cinereous; its bridle
and

- and throat gray, with minute blackish spots. Length thirteen inches. From North America.
6. The Brown-banded Petrel, *Procellaria Desolata*. It is blueish-ash; below white; the tips of its tail-quills blackish. Length eleven inches. Found at Desolation Island.
 7. The Sooty Petrel, *Procellaria Fuliginosa*. Its tail is notched. Length eleven inches. From Otaheite.
 8. The Fork-tail Petrel, *Procellaria Furcata*. It is silver-gray; its throat pale; its vent white. Length ten inches. Inhabits the Northern Archipelago.
 9. The Diving Petrel, *Procellaria Urinatrix*. Length eight inches and a half. Found at New Zealand.
 10. The Pacific Petrel, *Procellaria Pacifica*. Deep black; below dusky; legs pale. Length twenty-two inches. Found near the islands of the Pacific Ocean.
 11. The Dusky Petrel, *Procellaria Obscura*. Length thirteen inches. From Christmas Sound.

In the Genus MERGUS.

1. The Imperial Merganser, *Mergus Imperialis*. Size and form of a goose. Its tongue ciliated.



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2. The Brown Merganser, *Mergus Fuscus*; from Hudson's Bay. Length seventeen inches and a half.
3. The Blue Merganser, *Mergus Cæruleus*; from Hudson's Bay. Length fourteen inches.

In the Genus ANAS.

1. The Black-necked Swan, *Anas Nigricollis*; from the Falkland Islands. Size of the common swan.
2. The Black Swan, *Anas Atrata*; from New Holland. Larger than the common swan.
3. The Hybrid Goose, *Anas Hybrida*. Its bill semi-cylindrical; its cere red; its tail somewhat sharp. Size of the common goose. Appears in pairs in the sea about Chiloë. Lays eight eggs in the sand.
4. The Coscoroba Goose, *Anas Coscoroba*. Its bill enlarged and rounded at the end; its body white. Found in Chili. Large, and easily tamed.
5. The Antarctic Goose, *Anas Antarctica*. Length twenty - four or twenty - six inches.
6. The Variegated Goose, *Anas Variegata*; from New Zealand. Size of a large duck.
7. The Snow Goose, *Anas Hyperborea*. Its body snowy; its front yellowish; the ter-
first

first quills of its wings black ; its bill and legs red. Inhabits the Arctic regions. Length thirty-two inches.

8. The Great Goose, *Anas Grandis*. Its body blackish, below white ; its bill black ; its legs scarlet. Found in Siberia. Size of the swan.

9. The Barred-headed Goose, *Anas Indica*. In winter these arrive in India, perhaps from Thibet.

10. The Red-breasted Goose, *Anas Ruficollis*. Frequent in Russia, and on the northern parts of Siberia.

11. The Ruddy Goose, *Anas Casarca*. Inhabits Astracan. Goes in pairs, and has a pleasant cackle.

12. The Bean Goose, *Anas Segetum*. It is cinereous - brown, below whitish ; its wings gray ; its greater coverts and its secondary wing-quills tipped with white. Inhabits the northern parts of Europe and of America ; found in winter in the fens of Lincolnshire. Length thirty or thirty-six inches.

13. The Bering Goose, *Anas Beringii*. Its bill swelled ; its body white ; its wings black. Size of a common goose.

14. The Gulaund Duck, *Anas Borealis*. Its bill narrow ; its head glossy-green ; its breast and belly white. Inhabits the marshes of Iceland.

15. The

15. The White-headed Brent, *Anas Torrida*.
Size of the tufted duck.
16. The White-fronted Brent, *Anas Albifrons*.
Size of a cock.
17. The King Duck, *Anas Spectabilis*. Its bill
bunched at the base, and compressed; its
head hoary; its body black; its shoulders
whitish. Inhabits the northern parts of
Europe and of America. Length two
feet.
18. The Royal Duck, *Anas Regia*: from Chili.
A compressed caruncle on its front; its
body blue, and below brown; its collar
white.
19. The Georgia Duck, *Anas Georgica*. It is
cloudy-ash; a green spangle on its wings
edged with white; its quills blackish:
from the South Sea. Length twenty
inches.
20. The Brown Duck, *Anas Fuscescens*; from
Newfoundland. Length sixteen inches.
21. The Spotted-billed Duck, *Anas Poecilorhyncha*. Common in Ceylon.
22. The Curve-billed Duck, *Anas Curvirostra*.
Taken in Holland.
23. The Supercilious Duck, *Anas Superciliaria*.
The spangle on its wings blueish-green,
edged with black. Length twenty-one
inches. From New Zealand.
24. The Crimson-billed Duck, *Anas Erythrorhyncha*. It is brown, below white; its
tail

tail black. Length fifteen inches. From the Cape of Good Hope.

25. The Red-breasted Shoveler, *Anas Rubens*. Its tail is short and white. Sometimes taken in Lincolnshire.
26. The Jamaica Shoveler, *Anas Jamaicensis*. Variegated with brown, saffron, and rusty; the under side and throat white, with black spots. Length sixteen inches.
27. The Ural Duck, *Anas Leucocephala*. It is cloudy-yellowish, powdered with brown; its head and neck white. Larger than a teal. Found in Barbary, and also on the Uralian lakes, and on the rivers Irtis and Oby. Cannot walk, but swims very fast. Builds a floating nest among the reeds.
28. The Pied Duck, *Anas Labradora*; from Labrador. Length nineteen inches.
29. The Lapmark Duck, *Anas Scandiaca*. Its body black above; its breast and belly white.
30. The Cape Wigeon, *Anas Capensis*. It is ashy; its back reddish-brown; its feathers edged with yellow.
31. The Bimaculated Duck, *Anas Glocitans*. Its head green; a round rusty spot between the bill and the eye, and another oblong one behind the ears. It has a clucking voice. Length twenty inches.

Found on the Lena and the lake Baikal ;
and sometimes in England.

32. The Soft-billed Duck, *Anas Malacorhynchos* ; from New Zealand. Has a piping voice. Length eighteen inches.
33. Jacquin's Duck, *Anas Jacquini*. Crimson ; its back blackish ; its bill and feet black. Its voice very sharp. From St. Domingo.
34. The Western Duck, *Anas Dispar*. White, below ferruginous ; spot on the back of the head, and the front, greenish. Length seventeen inches. From Sweden and Kamtschatka.
35. The Pink-headed Duck, *Anas Ceryophyllacea* ; from India. It goes in pairs, and is easily tamed. Length twenty-one inches.
36. The New Zealand Duck, *Anas Novæ Zealandiæ*. Resembles the Tufted Duck.
37. The Crested Duck, *Anas Cristata* ; from Statenland. Length twenty-eight inches.
38. The Iceland Duck, *Anas Islandica*. It is black crested ; its throat, its breast, and its belly white.
39. The Dusky Duck, *Anas Obscura* ; from New York. Length two feet.
40. The Baikal Teal, *Anas Formosa*. It is brown ; its top black edged with white ; its throat tawnyish, spotted with black ;
a black

a black spangle on the wings, edged with brick-colour. Length fifteen inches.

41. The Ilna Teal, *Anas Ilna*; from China. It is greenish about the eyes.
42. The Black Teal, *Anas Gmelini*. Its breast is crossed with red lines. Found at the Caspian, and through the whole of the south of Russia.
43. The Alexandrian Teal, *Anas Alexandrina*. Its bill and vent are black; its belly white; its neck cinereous, with black semicircles.
44. The Sirsair Teal, *Anas Sirsair*. Its bill yellow below; the spangle on its wings divided obliquely. Found in Arabia.

In the Genus APTENODYTES.

1. The Papian Penguin, *Aptenodytes Papua*. Its bill and feet reddish; a white spot on the back of the head. Length two feet and a half.
2. The Antarctic Penguin, *Aptenodytes Antarctica*. Its bill deep black; its feet reddish; a black line on its throat.
3. The Collared Penguin, *Aptenodytes Torquata*. Its bill and feet black; a naked bloody space about the eyes. Length eighteen inches. Found in New Guinea, Kerguelen's Land, and New Georgia.
4. The Little Penguin, *Aptenodytes Minor*; from New Zealand. Its bill black;

its feet whitish. Length thirteen or fifteen inches.

5. The Woolly-cinereous Penguin, *Aptenodytes Chilensis*. Common in the Archipelago of Chiloe. Size of a Goose.
6. The Three-toed Penguin, *Aptenodytes Chilensis*. Found in Chili. Size of the preceding, but longer necked. Lays in the sand six or seven eggs white, dotted with black.

In the Genus PELECANUS.

- i. The Red-backed Pelican, *Pelecanus Rufescens*; from Africa. Length five feet.
2. The Charlestown Pelican, *Pelecanus Carolinensis*. Above dusky, below white. Length three feet and a half.
3. The Rough-billed Pelican, *Pelecanus Erythrorhynchos*; from North America. Length four feet and a half.
4. The Saw-billed Pelican, *Pelecanus Thagus*. Inhabits Chili and Mexico. Size of a turkey. Breeds on cliffs.
5. The Palmerston Frigate Pelican, *Pelecanus Palmerstoni*. Its tail is forked; its body brown, glossed with green, below white; its throat variegated with black and white; its belly white; its vent black. Length thirty-eight inches.
6. The Violet Cormorant, *Pelecanus Violaceus*; from Kamtschatka.

7. The Red-faced Shag, *Pelecanus Urile*; from Kamtschatka. Length thirty-one or thirty-four inches.
8. The Spotted Shag, *Pelecanus Punctatus*; from New Zealand. Breed among the rocks or trees. Length twenty-one or twenty-four inches.
9. The Carunculated Shag, *Pelecanus Carunculatus*. Numerous in New Zealand and Statenland. Breeds among the tufts of tall grass.
10. The Magellanic Shag, *Pelecanus Magellanicus*. A spot behind its eyes, and its belly white; its temples and chin reddish; its flanks striped with white. Inhabits Terra del Fuego and Statenland. Breeds in holes of the rocks. Length thirty inches.
11. The Pied Shag, *Pelecanus Varius*; from New Zealand. Breeds on trees. Length thirty inches.
12. The Tufted Shag, *Pelecanus Cirrbatus*; from New Zealand. Length thirty-four inches.
13. The African Shag, *Pelecanus Africanus*. Its throat white; the coverts of its wings blue-gray, and black at the edge and tip. Length twenty inches.
14. The Dwarf Shag, *Pelecanus Pygmaeus*. Lives among the flocks of Shags on the Caspian Sea. Hardly so large as a teal.

In the Genus PHAETON.

The Black-billed Tropic Bird, *Phaeton Melanorynchus*. It is striped with black and white; its under side and front white; a bar behind its eyes; its bill and feet is black. Found in Turtle and Palmerston Islands. Length nineteen inches and a half.

ADDENDA.

A D D E N D A.

THE manners of the Wood Ibis, *Tantalus Loculator*, are well described by Mr. Bartram:—"This solitary bird does not associate in flocks, but is generally seen alone; commonly near the banks of great rivers, in vast marshes or meadows, especially such as are caused by inundations; and also in the vast deserted rice plantations: he stands alone on the topmost limb of tall dead cypress trees; his neck contracted or drawn in upon his shoulders, and beak resting like a long scythe upon his breast: in this pensive posture and solitary situation, it looks extremely grave, sorrowful, and melancholy, as if in the deepest thought." *Travels in North and South Carolina, Georgia, &c.* p. 148.

THE King of the Vultures, *Vultur Papa*, is found also in the southern states of America. The Creek Indians, who inhabit the back country adjoining to Georgia and South Carolina, employ

employ the tail-feathers for constructing their royal standard. These birds seldom appear, except when the deserts are on fire, in which case they gather from all quarters to feast on the serpents, frogs, and lizards that are roasted in the hot embers.

END OF THE NINTH VOLUME.

I N D E X,

*Of the Names of BUFFON, LINNÆUS, and LATHAM'S
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Little	—	378,	406	Blue Throat	—	V. 195
Little, of Cayenne	—		413	Boat-bill	—	VII. 426
Rayed Brown	—		407	Bonana, Lesser	—	III. 217
Rufous	—		408	Booby, Common	—	VIII. 333
Senegal	—		409	Great	—	337
Little	—		ib.	Lesser	—	339
Spotted	—		410	Little	—	ib.
Starred	—		411	Brown	—	ib.
Swabian	—		406	Spotted	—	340
Tiger	—		415	White	—	336
Yellow of Brasil	—		412	Boutfallick	—	VI. 319
Zigzag	—		413	Brambling	—	IV. 108
Blackbird	—	III.	292	Brent	—	IX. 76
				Brunet	—	III. 349
				Brunette	—	VII. 472
				Bucco		

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Bucco Capensis	—	VII.	91	Bunting, Red-eyed	—	IV.	297
Cayanensis	—		90	Reed	—		253
Dubius	—		126	Rice	—		270
Elegans	—		92	Snow	—		264
Grandis	—		100	Shaft-tailed	—		137
Macrorhynchus	—		93	Towhe	—		122
Niger	—		97,98	Variegated	—		142
Parvus	—		99	Whidah	—		134
Philippensis	—		96	Yellow	—		274
Tamatia	—		88	Yellow-bellied Cape	—		262
Viridis	—		101	Yellow-faced	—		290
Buceros Abyssinicus	—		148	Buphaga Africana	—	III.	154
Africanus	—		147	Bustard, African	—	II.	44
Bicornis	—		150	Arabian	—		42
Galeatus	—		153	Great	—		1
Hydrocorax	III. 34—VII.		140	Indian	—		47
Malabaricus	—	VII.	142	Little	—		34
Manillensis	—		137	Rhaad	—		52
Nafutus	—		134	Ruffed	—		50
Panayensis	—		138	Thick-kneed	—	VIII.	102
Rhinceros	—		155	Butcher Bird	—	I.	239
Bulfinch	—	IV.	298	Buzzard	—		159
Bunting, Amazon	—		291	Ash-coloured	—		177
Blue	—		295	Honey	—		161
Blue-faced	—		153	Moor	—		172
Bourbon	—		292	Cacastol	—	III.	171
Brazilian	—		288	Cacolin	—	II.	430
Cape	—		263	Caica	—	VI.	217
Cinereous	—		294	Calandre	—	V.	47
Cirl	—		279	Calao	—	VII.	130
Common	—		284	Abyssinian	—		148
Dominican	—		138	African, or Brac	—		147
Foolish	—		282	Malabar	—		142
Gray	—		293	Manilla	—		137
Green	—		155	Molucca	—		140
Hooded	—		256	of the Island of Panay	—		138
Lefbian	—		258	Philippine	—		150
Long-tailed	—		140	Rhinceros	—		155
Lorraine	—		259	Round helmeted	—		153
Louisiana	—		272	Calybé	—	III.	152
Louisiane	—		261	Cancroma	—	VII.	426
Mexican	—		289	Canut	—	VIII.	134
Mustachoe	—		257	Caprimulgus Acutus	—	VI.	461
Olive	—		290	Americanus	—		458
Orange-shouldered	—		141	Brasilianus	—		455
Painted	—		150	Carolinensis	—		448
Payanan	—		143	Cayanensis	—		455, 459
Plata	—		291	Europeus	—		436
Pittaceous	—		144				

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Caprimulgus Grandis	VI.	456	Certhia Zeylonica	—	V.	498	
Griseus	—	462	Chacamel	—	II.	346	
Guianensis	—	463	Chaffinch	—	IV.	96	
Jamaicensis	—	452	Charadrius, Apricarius	VIII.		82	
Rufus	—	464	Bilobus	—		99	
Virginianus	—	450	Calidris	—	VII.	508	
Caracara	—	II.	344	Cayanus	—	VIII.	100
Caraya	—	IV.	388	Coronatus	—		98
Cardinal, Crested	—	III.	414	Gallicus	—		121
Cariama	—	VII.	313	Hiaticula	—		88
Carouge	—	III.	214	Himantopus	—		109
Cassican	—	VII.	128	Melanocephalus	—		101
Cassique, Yellow	—	III.	207	Merinellus	—		84
Green	—		211	Oedicnemus	—		102
Crested	—		212	Pileatus	—		97
Cassowary, Galeated	—	I.	376	Pluvialis	—		78
New Holland	—		389	Spinofus	—		95, 96
Catotol	—	IV.	199	Vociferus	—		93
Caudec	—		473	Charboniere	—	V.	394
Caurale	—	VIII.	161	Chatterer	—	III.	389
Ceinture de Pretre	—	V.	59	Bluc-breasted	—	IV.	356
Cendrille	—		63	Bohemian	—	III.	389
Certhia Afra	—		505	Carunculated	—	IV.	362
Brasiliana	—		530	Pompadour	—		358
Chalybea	—		494	Purple-throated	—		355
Cruentata	—		506	Red	—		361
Cyana	—		527	Silky	—		357
Cyanea	—		520	Variegated	—		364
Familiaris	—		476	Cheric	—	V.	271
Famofa	—		512	Chimer	—	IV.	383
Flaveola	—		532	Chinquis	—	II.	319
Gutturalis	—		516	Charge	—		47
Jugularis	—		501	Ciconia Nigra	—	VII.	261
Lotenia	—		502	Cincle	—		524
Mexicana	—		514	Cochicat	—		118
Muraria	—		481	Cock	—	II.	54
Olivacea	—		499	of the Rock	—	IV.	346
Omnicolor	—		504	Peruvian	—		349
Philippina	—		492	Cockatoo	—	VI.	80
Pinus	—		292	Black	—		87
Pulchella	—		511	Lesser White	—		83
Purpurea	—		518	Little flesh-billed	—		85
Pusilla	—		490	Red crested	—		ib.
Senegalenfis	—		491	Great	—		ib.
Soui-manga	—		487	White-crested	—		82
Sperata	—		489	Yellow-crested	—		83
Spiza	—		524	Cocotzin	—	II.	495
Variegata	—		529	Cocquar	—		306
Violacea	—		509	Colemoufe	—	V.	401
							Coleniculi

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Coleniculi	—	II.	431	Colymbus Thomenfis	VIII.	223
Colibri	—	VI.	40	Troile	—	IX. 298
Blue	—		59	Urinator	—	VIII. 213
Carmine-throated	—		54	Commander	—	III. 188
Dotted or Zitzil	—		47	Bojour	—	IV. 296
Green and black	—		50	Condor	—	I. 139
Green-throated	—		53	Coot, Common	—	VIII. 200
Little	—		61	Crested	—	209
Rufy-bellied	—		ib.	Greater	—	207
Topaz	—		44	Coquillade	—	V. 74
Tufted	—		51	Coracias, Abyssinica	—	III. 126
Violet	—		55	Cayanensis	—	118
Violet-tailed	—		52	Garrula	—	ib.
Colin	—	II.	426	Madagascariensis	—	131
Great	—		429	Orientalis	—	130
Colius, Payanensis	—	IV.	326	Sinensis	—	117
Striatus	—		325	Varia	—	VII. 128
Collar, Red	—	VI.	57	Cormorant	—	VIII. 282
Colma	—	IV.	380	Corrira, Italica	—	428
Colnud, Cayenne	—	III.	72	Corvus Balicassius	—	III. 73
Columba, Canadensis	—	II.	494	Calvus	—	69
Capensis	—		490	Canadensis	—	103
Carolinensis	—		494	Caribæus	—	88
Livia	—		439	Caryocatactes	—	109
Macroura	—		489	Cayanus	—	105
Madagascariensis	—		477	Corax	—	11
Marginata	—		488	Cornix	—	51
Palumbus	—		469	Corone	—	38
Passerina	—		495	Cristatus	—	106
Riforia	—		487	Dauricus	—	57
Speciosa	—		478	Eremita	—	7
Turtur	—		482	Erythorynchos	—	101
Viridis	—		491	Flavus	—	106
Coly	—	IV.	321	Frugilegus	—	46
Colymbus Arcticus	—	VIII.	243	Glandarius	—	94
Auritus	—		220	Graculus	—	1
Cayenensis	—		225	Hottentottus	—	68
Cornutus	—		221	Jamaicensis	—	58
Cristatus	—		219	Mexicanus	—	91
Dominicus	—		231	Monedula	—	59
Glacialis	—		241	Novæ Guineæ	—	70
Grylle	—	IX.	301	Nudus	—	72
Immer	—	VIII.	234	Papuenfis	—	71
Ludovicianus	—		224	Peruvianus	—	102
Minor	—		228	Pica	—	75
Obscurus	—		218	Pyrrhocorax	—	65
Podiceps	—		230	Sibiricus	—	105
Rubricollis	—		225	Zanahoe	—	93
Stellatus	—		237	Cotinga	—	IV. 351
				2 L 4		Coukeels

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Coukeels	—	VI.	329	Creepers, Green-faced	V.	516
Coua	—		313	Green-gold	—	504
Coulaciffi	—		148	Lotens	—	502
Coulavan	—	III.	230	Philippine	—	492
Couricaca	—	VII.	267	Purple	—	518
Coulini or Courlan	—		425	Red	—	514
Coyolcos	—	II.	430	Red-breasted	—	489
Crab-catcher	—	VII.	371	Red-spotted	—	506
Black	—		377	Senegal	—	491
Blue	—		381	Variiegated	—	529
Brown-necked Blue	—		382	Violet	—	487
Chalybeate	—		387	Violet-headed	—	509
Cinereous	—		385	Wall	—	481
Coromandel	—		376	Creepers-billed Brown Bird		516
Gray	—		391	Purple Bird	—	518
Green	—		388	Red Bird	—	514
Iron-gray	—		383	Crescent	—	III. 456
Little	—		378	Cresserelle	—	I. 226
Mahon	—		376	Crick	—	VI. 196
Purple	—		385	Blue-faced	—	195
Red-billed White	—		384	Blue-headed	—	198
Rufous	—		390	Mealy	—	193
Spotted Green	—		389	Red and Blue	—	194
White and Brown	—		377	with a Yellow Head and		
Cracra	—		386	Throat	—	190
Crane	—		277	Violet	—	200
Brown	—		299	Crispin	—	III. 369
Collared	—		295	Cross-bill	—	405
Hooping	—		296	Crotophaga Ani	—	VI. 364
Numidian	—		301	Major	—	366
White	—		296	Crow, Alpine	—	III. 65
Crax, Alektor	—	II.	327	Bald	—	69
Pauxi	—		335	Bare-necked	—	72
Creepers	—	V.	473	Caribbean	—	88
African	—		505	Carion	—	38
All-green	—		527	Chattering	—	58
Beautiful	—		511	Cinereous	—	103
Black and Blue	—		520	Hermit	—	7
Blue	—		522	Hooded	—	51
Black and Violet	—		530	Hottentot	—	68
Yellow	—		532	Jamaica	—	58
Black-headed	—		524	Mexican	—	91
capped	—		525	Lesser	—	93
Blue-headed	—		526	New Guinea	—	70
Cayenne	—		527	Papuan	—	71
Ceylonese	—		498	Philippine	—	73
Collared	—		494	Red-legged	—	1
Common	—		476	Senegal	—	57
Famous	—		512	White-breasted	—	ib.
				Cuckoo		

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516	Cuckoo	—	VI.	262	Cuckow, Yellow-bellied	VI.	328
504	African	—		341	Cuculus Ægyptius	—	314
502	Black of Cayenne	-		360	Afer	—	341
492	Little	—		361	Americanus	—	345
518	Black and White crested			309	Auratus	—	332
514	Blue	—		337	Brafilienfis	—	256
489	Brazilian crested	—		352	Ceruleus	—	337
506	Brown	—		355	Canorus	—	262
491	Brown and Yellow	-		326	Cayanus	—	358
529	Brown variegated with				Cornutus	—	354
487	Black	—		323	Coromandus	—	334
509	Carolina	—		345	Cristatus	—	313
481	Cayenne	—		358	Dominicus	—	357
516	Chinese	—		336	Flavus	—	328
518	Chinese, spotted	—		325	Glandarius	—	308
514	Collared	—		334	Guira	—	352
456	Collared, crested	—		ib.	Honoratus	—	321
226	Coromandel, crested	-		327	Indicator	—	338
196	Egyptian	—		314	Maculatus	—	325
195	Gilded	—		332	Madagascariensis	—	311
198	Gold, Green, and White	ib.			Melanoleucus	—	327
193	Great spotted	—		308	Mindanensis	—	320
194	Great Madagascar	-		311	Minor	—	346
	Greenish of Madagascar	ib.			Nævius	—	355
190	Honey	—		338	Niger	—	330
200	Horned	—		354	Orientalis	—	330
369	Indian spotted	—		319	Paradiseus	—	333
405	Laughing	—		353	Perfa	—	257
364	Little	—		328	Pifanus	—	309
366	Long-bellied Rain	-		347	Pluvialis	—	344
65	Long-shafted	—		333	Punctatus	—	323
69	Madagascar	—		313	Radiatus	—	326
72	Mindanao	—		320	Ridibundus	—	353
88	Panayan	—		326	Scolopaceus	—	319
38	Paradise	—		333	Senegalenfis	—	317
58	Playe	—		358	Sinenfis	—	336
103	Pifan	—		309	Tahitiis	—	323
7	Pointer	—		338	Tenebrosus	—	361
51	Rain	—		344	Tranquilus	—	360
68	Red-cheeked	—		256	Vetula	—	347
58	Rufous spotted	—		323	Cujelier	—	V. 23
91	Rufous white	—		317	Cuil	—	VI. 321
93	Sacred	—		321	Curassow, Crested	—	II. 327
70	St. Domingo	—		357	Crying	—	346
71	Society	—		323	Culhew	—	335
73	Spotted	—		355	Curlew	—	VIII. 18
1	Straight-heeled	—		317	Bald	—	30
57	Variegated of Mindanao	320			Brown	—	28
ib.	White-rumped Black	-		361	Crested	—	32
koo							Curlew,

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Curlew, great, of Cayenne	VIII.	46	Duck, Gray-headed	- IX.	213
Green	—	26	Harlequin	—	210
Luzonian	—	29	King	—	213
Red	—	33	Little Brown	—	242
Red-fronted Brown	—	40	Little Thick-headed	-	20
White	—	39	Long-tailed from New-		
Wood	—	41	foundland	—	169
Curucui, Red-bellied	- VI.	246	Mareca	—	215
Violet-headed	—	252	Mexican	—	241
Violet-hooded	—	ib.	Muscovy	—	138
Yellow-bellied	—	250	Musk	—	139
Curucuckoo	—	256	Red-billed Whistling		154
			Red Crested	—	153
Darter, White-bellied	VIII.	406	Summer	—	206
Daw, Alpine	— III.	65	Tufted	—	194
Bald	—	69	Velvet	—	204
Mustachio	—	68	White-faced	—	214, 236
New Guinea	—	70	Dunlin	— VII.	524
Papuan	—	71			
Demi-fins	— V.	325	Eagle, Bald	— I.	65
Didus, Ineptus	— I.	390	Cinereous	—	ib.
Nazareus	—	400	Golden	—	46
Solitarius	—	394	Little American	—	100
Diomedea, Demersa	- IX.	341	Oronoco	—	97
Exulans	—	289	Pondicherry	—	ib.
Diver, Black-throated	VIII.	243	Ringtail	—	54
Great	—	234	Rough-footed	—	58
Great Northern	—	241	Sea	—	76
Imber	—	234	White-tailed	—	65
Little	—	237	Egret, Demi	— VII.	363
Little Northern	—	243	Great	—	361
Sea-cat	—	238	Little	—	357
Speckled	—	237	Reddish	—	362
Dodo, Hooded	— I.	390	Rufous	—	ib.
Nazarene	—	400	Eider	— IX.	90
Solitary	—	394	Emberiza Amazona	- IV.	291
Dotterel	— VIII.	84	Bicolor	—	157
Double Spur	— II.	388	Borbonica	—	292
Drongo	— IV.	478	Brafilienfis	—	288
Dronte	— I.	390	Butyracea	—	156
Duck	— IX.	100	Cerulea	—	295
Beautiful, crested	—	206	Capensis	—	262, 263
Black	—	205	Cia	—	282
Brown	—	212	Cinerea	—	294
Buffel-headed	—	209	Ciris	—	150
Collared, of Newfound-			Cirlus	—	279
land	—	210	Citrinella	—	274
Common tame	—	100	Cyanopsis	—	153
Falcated	—	232	Familiaris	—	294
			Emberiza		

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213	Emberiza Flaveola	—	IV. 290	Falco Pygargus	—	I. 167
210	Granatina	—	144	Sacer	—	199
213	Grisea	—	293	Serpentarius	—	VII. 316
242	Hortulana	—	245	Subbuteo	—	I. 223
20	Lefbia	—	258	Tinnunculus	—	226
169	Longicauda	—	141	Falcon, Black	—	216
215	Lotharingica	—	259	Cirrated	—	219
241	Ludovicica	—	261	Common	—	202
138	Mexicana	—	289	Fisher	—	222
139	Miliaria	—	284	Jer	—	192
154	Nivalis	—	264	Red	—	217
153	Olivacea	—	290	Red-throated	—	100
206	Orizivora	—	270, 272	Spotted	—	217
194	Panayensis	—	143	Stone	—	231
204	Paradisica	—	134	Fauvette	—	V. 110
236	Platenfis	—	291	Alpine	—	146
524	Principalis	—	142	Babbler	—	128
65	Provincialis	—	257	Black Headed	—	119
ib.	Pittacea	—	144	Blueish of St. Domingo	—	156
46	Regia	—	137	Cayenne	—	155
100	Schæniclus	—	253	Gray or Grisette	—	125
97	Serena	—	138	Little	—	117
ib.	Vidua	—	140	Little Rufous	—	137
54	Viridis	—	155	of the Woods, or Russet	—	131
58	Erne	—	I. 65	Reed	—	134
76	Falco Æruginosus	—	172	Rufous-tailed from Cayenne	—	155
65	Æsalon	—	232	Spotted	—	140
363	Albicaudus	—	65, 68	Spotted from Louisiana	—	152
361	Albicilla	—	ib.	Spotted from the Cape	—	151
357	Apivorus	—	161	of Good Hope	—	152
364	Buteo	—	159	Small	—	142
ib.	Candidus	—	195	Winter	—	154
90	Chrysaëtos	—	46	Yellow-breasted Louifiana	—	154
291	Cyaneus	—	164	Favourite	—	VIII. 197
157	Formosus	—	101	Fieldfare	—	III. 263
292	Fulvus	—	54, 153	Canada	—	271
288	Furcatus	—	175	Cayenne	—	270
156	Gallicus	—	86	Fig-eater	—	V. 140
295	Gyrfalco	—	194	Ash-throated Cinereous	—	321
263	Haliaëtos	—	70	Belted	—	300
282	Laniarius	—	196	Black	—	313
294	Leucocephalus	—	65, 69	Black-cheeked	—	288
150	Lithofalco	—	231	Black-collared	—	294
279	Nævius	—	58	Blue	—	275
274	Nifus	—	179	Brown	—	287
294	Offifragus	—	76	Brown and Yellow	—	290
riza	Palumbarius	—	184	Cærulean	—	307
	Piscator	—	222	Fig-		
	Ponticerianus	—	97			

Fly-ca

[illegible]

I N D E X.

317	Fly-catcher, Red-eyed	IV.	434	Fringilla Pecoris	IV.	120
87	Round-crested	—	442	Petronia	III.	453
63	Rufous	—	433, 443	Purpurea	IV.	317
127	Senegal	—	424	Senegala	—	87
156	Spotted	—	416	Sinica	—	125
249	Spotted Yellow	V.	289	Spinus	—	188
184	Streaked	—	IV. 440	Trifidis	—	179
437	Swallow-tailed	—	457	Variegata	—	127
418	Tyrant	—	472	Zena	—	121
1	Undulated	—	423	Fulica Aterrima	VIII.	207
38	Whiskered	—	430	Atra	—	200
34	Yellow-bellied	—	444	Cayanensis	—	173
33	Yellow-crowned	—	473	Chloropus	—	163
22	Foudi	—	III. 450	Cristata	—	209
31	Foudi Jala	—	V. 108	Fistulans	—	172
36	Founingo	—	II. 477	Flavipes	—	171
10	Francolin	—	384	Flavirostris	—	197
37	Frigat	—	VIII. 346	Fufca	—	168
35	Pelican	—	ib.	Maderaspatana	—	195
24	Fringilla Amandava	IV.	85	Martinica	—	196
23	Argentoratenfis	—	63	Nævia	—	170
30	Benghalus	—	81	Porphyrio	—	186
414	Bicolor	—	157	Purpurea	—	198
439	Butyracea	—	156	Spinosa	—	185
476	Cælebs	—	96	Viridis	—	194
429	Canaria	—	1	Gachet	—	311
437	Capua	—	III. 432	Gadwall	—	IX. 157
ib.	Carduelis	—	IV. 160	Gallinule, Brown	VIII.	168
426	Catotol	—	199	Cayenne	—	173
431	Crispa	—	128	Common	—	163
428	Cristata	—	III. 451	Crake	—	137
455	Cyanomelas	—	V. 329	Crowing	—	198
438	Domestica	—	III. 432	Favourite	—	197
420	Erythrophthalma	IV.	122	Green	—	194
418	Eustachii	—	126	Grinetta	—	170
458	Granatina	—	144	Madras	—	195
447	Jamaica	—	120	Martinico	—	196
451	Indica	—	129	Piping	—	172
446	Laponica	—	117	Purple	—	186
434	Linaria	—	183	Spotted	—	147
441	Longirostris	—	124	Yellow-legged	—	171
436	Lutensis	—	177	Ganga	—	II. 213
200	Maia	—	92	Gannet	—	VIII. 341
459	Melba	—	178	Lesser	—	336
452	Montana	—	III. 445	Garganey	—	IX. 218
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150	—	245	195	—	24	240	—	138
151	—	257	196	—	47	241	—	144
152	—	313	197	—	78	242	—	144
153	—	317	198	—	88	243	—	157
154	—	337	199	—	102	244	—	166
155	—	366	200	—	109	245	—	171
156	—	372	201	—	113	246	—	191
157	—	379	202	—	123	247	—	196
158	—	402	203	—	126	248	—	212
159	—	411	204	—	137	249	—	218
160	—	436	205	—	144	250	—	233
161	—	504	206	—	161	251	—	256
162	VII.	6	207	—	163	252	—	258
163	—	41	208	—	177	253	—	277
164	—	79	209	—	186	254	—	279
165	—	88	210	—	200	255	—	289
166	—	96	211	—	219	256	—	298
167	—	113	212	—	228	257	—	304
168	—	128	213	—	234	258	—	330
169	—	143	214	—	241	259	—	330
170	—	158	215	—	248	260	—	333
171	—	214	216	—	254	261	—	338
172	—	219	217	—	259	262	—	349
173	—	243	218	—	282			

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